Morello Forni

ovens manufacturers in Genoa since 1969

MORELLO FORNI RANGE GAS AND WOOD ROTATING OVEN "FGRi"

OVEN OPERATING INSTRUCTION (V.060213)

Manufacturer: Morello Forni S.a.s.

Address: Via B. Parodi 35, 16014 Ceranesi (GE) Italy

Telephone: (+) 39. 010 7401194

Fax: (+) 39. 010 7492194

e-mail: info@morelloforni.com

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.

OVEN RANGE:

- FGR
- FGRI
- FMR
- FWR
- FG
- FGI
- FM
- FW

FGRiUSA_291012_001

MORELLO FORNI FGRI / FGI RANGE GAS AND WOOD FIRED ROTATING OVEN OPERATING INSTRUCTIONS.

KEEP THIS MANUAL FOR FUTURE REFERENCE.

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNIT AT MAIN SHUTOFF VALVE AND CONTCT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquid in the vicinity of this oven or any other appliance.

ESURE DE SÉCURITË

Ne pas entreposer ni utiliser de'essence ni autre vapeurs ou liquides inflammable á proximité de cet four ou de tout autre appareil.

WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injuri or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this oven.

AVERTISSEMENT:

l'installation, le réglage, la modification, la reparation ou l'entretien incorrect de cet appareil peut causer des dommages materiels, des blessures ou la mort. Lire attentivement les instructions d'installation, de fonctionnement et d'entretien avant de procéder á son installation ou entretien.

IMPORTANT

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

Morello Forni's FGRI Ovens Range have been tested and approved by UL Underwrites Laboratories and are UL / CSA approved listed to ANSI Z83.11- CSA 1.8, Standard for Gas Food Service Equipment, 3rd edition. ULC-S627, Standard for Space Heaters for Use with Solid Fuels. National Fuel Code, Ansi Z223.1 - NFPA 54, or CAN/CGA-B149.1 (Natural Gas) or CAN/CGA - B149.2 (Propane) as appropriate.

Chapter 1 - FOREWORD & GENERAL OVEN DESCRIPTION

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.

GENERAL SAFETY WARNINGS

BEFORE TURNING THE OVEN ON, PLEASE READ THE INSTRUCTIONS PROVIDED IN THE OPERATION SECTION OF THIS MANUAL; IF THIS MANUAL BECOMES UNREADABLE OR DAMAGED, PLEASE REQUEST AN EXTRA COPY TO THE MANUFACTURER SPECIFYING THE MODEL, SERIAL NUMBER AND DATE OF PURCHASE OF THE OVEN.
ALWAYS COMPLETE THE RECOMMENDED INSTALLATION PROCEDURE BEFORE TURNING ON THE OVEN.
DO NOT DISCONNECT THE OVEN FROM THE POWER SUPPLY BY PULLING THE POWER CORD OUT OF THE OUTLET.

DO NOT INSERT SCREWDRIVERS OR OTHER OBJECTS IN THE PROTECTION GRILLES OF THE OVEN OR BETWEEN MOVING PARTS

DO NOT ALLOW CHILDREN OR UNSKILLED PEOPLE TO USE OVEN.

ALWAYS DISCONNECT THE OVEN FROM THE POWER SUPPLY BEFORE CLEANING OR SERVICING IT.
IN THE EVEN OF PERMANENT AND/OR TEMPORARY FAILURE ALWAYS TURN THE OVEN OFF AND DO NOT ATTEMP ANY REPAIRS UNLESS OPERATED BY QUALIFIED TECHNICIANS.

NOTES:

-The manufacturer disclaims any resposability for damages caused by improper and incorrect use of the oven or by failure to comply with the instrucions provided by this manual.
-This manual should be stored in an accessible location know by all Users, Installer and Technicians responsible for ordinary and extraordinary maintenance.

1.2 OVEN DESCRIPTION

This manual provides the instructions for a correct installation, operation and maintenance of the oven; it is suggested that you thorougly read this manual and carefully follow all of the instructions provided.

Morello pizza ovens are produced with quality workmanship and materials. Proper installaion, use and maintenance of your pizza oven will result in many years of satisfactory performance.

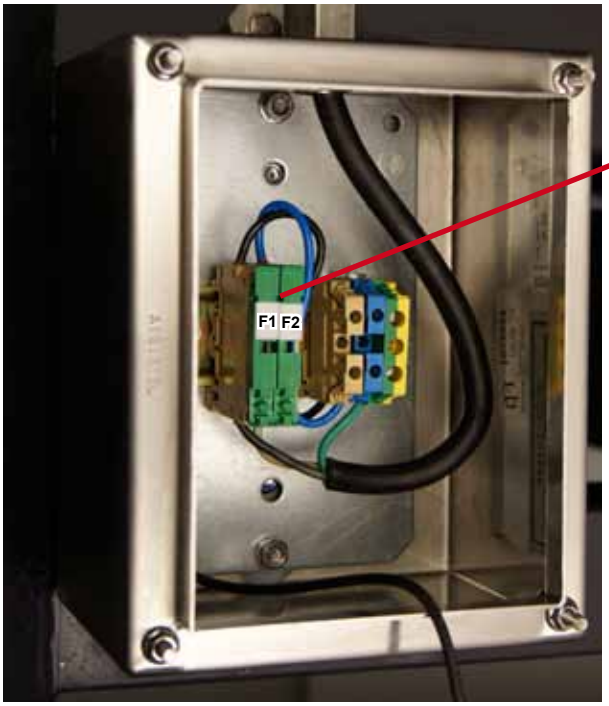
Standard features include an external body in steel painted sheet housing a heavy composite hearth in refractory material heated by wood, wood and gas, gas only, by means off digitally controlled gas burners (FIG.1).

The oven is intended for indoor commercial use.

The pages 8 , 9, 10 and 11, show the layout of the different oven models with the installation heights and dimensions in centimeters, weight in Kgs.

1) Oven exhaust flues collar position.
2) Oven front covering, upper parts.
3) Oven front, refractory mouth.
4) Natural stone oven shelf.
5) Peephole bedplate burner.
6) Touch Control Panel.
7) Oven controls case.
8) Gear reductor case.
9) Oven stand.
10) Inlet 3/4” NPT gas collector position.
11) Removable ash drawer.
12) External oven metallic covering.
13) Oven Data Plate
14) Main ON/OFF switch
15) Junction Box
16) Exhaust flue chimney collar
17) Power line fuses holder
18) Cleaning path Collection drawer (only FGR model)

FIG.1



Have a licenced electrician connect the oven to the appropriate circuit.
Electrical diagram are located in this manual at end page.
Oven is rated 208 V AC, 60 Hz, 4.5 A
A connection box (15) is provided with the oven.
The connection box is suitable for connection to a 1/2" conduit.
During installation be sure to leave enough free space around the connection box to get access to the terminal bar inside.
On the terminal bar are placed the power line fuses holder (F1) and (F2)
The connection box is designed to accept a 1/2" connectors.

The oven power supply rating must be as described on the Oven Data Plate (13) fitted at the oven on the right side.
Oven Data Plate (13) resumes all the mains details about gas and electric connections, oven configuration and gas oven factory setting.

The ovens range FGRI and FGI are equipped with a 3/4” NPT gas connection (10) located at the rear left of controls case.
Have a licensed gas installer to provide the gas conenction and test all fittings and pipe connections for leaks.
Use an approved gas leaks detectors.
NEVER USE FLAME LOOKING FOR GAS LEAKS!

The exhaust flues collar (16) is positioned on oven top front position (1) to provide a positve connection to the chimney. Depending by the oven model two different flue collectors are provided having 8 or 10 inch internal nominal diameter. See below reference table.
The oven flue collector is designed to be connected to chimney listed to UL-103HT.

WARNING

BEFORE INSTALLATION, VERIFY THAT THE ELECTRICAL VOLTAGE AND GAS SUPPLY ARE CONSISTENT WITH THE SPECIFICATIONS ON THE RATING PLATE LOCATED ON THE LEFT SIDE OF THE APPLIANCE.
SHOULD THEY NOT MATCH, DO NOT PROCEED WITH THE INSTALLATION AND CONTACT YOUR DEALER OR MORELLO FORNI

WARNING

FOR YOUR SAFETY, IT IS STRONGLY RECOMMENDED THIS OPERATION TO BE PERFORMED BY QUALIFIED PERSONNEL ONLY.
THE CENTER OF GRAVITY OF THE OVEN IS LOCATED IN A HIGH POSITION ABOVE THE GROUND.

2.1 UNPACKING

This pizza oven is shipped completely assembled and has been manufactured with with te utmost care and inspected before leaving the factory.
Transportation must be handled very carefully by the carrier. All handling operations must be performed with efficient and appropriated unloading and moving equipment suitable to suppport its weight.
Carefully place it in a work-accessible area as near to its final installed position as possible, unpack the pizza oven and immediatelycheck for possible shipping damage. If the pizza oven is found to be damaged and contact the carrier immediately.
Carefully move the oven to its dedicated final position.

APPLICABLE STANDARDS

- ANSI Z83.11- CSA 1.8, Standard for Gas Food Service Equipment, 3rd edition.
- ULC-S627, Standard for Space Heaters for Use with Solid Fuels.
-

The units are permanently connectted to the gas supply according to:

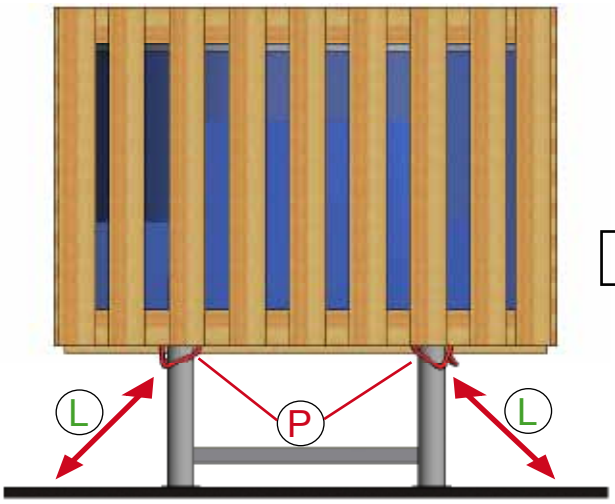
- National Fuel Code, Ansi Z223.1 - NFPA 54, or CAN/CGA-B149.1 (Natural Gas)

or

- CAN/CGA - B149.2 (Propane) as appropriate.

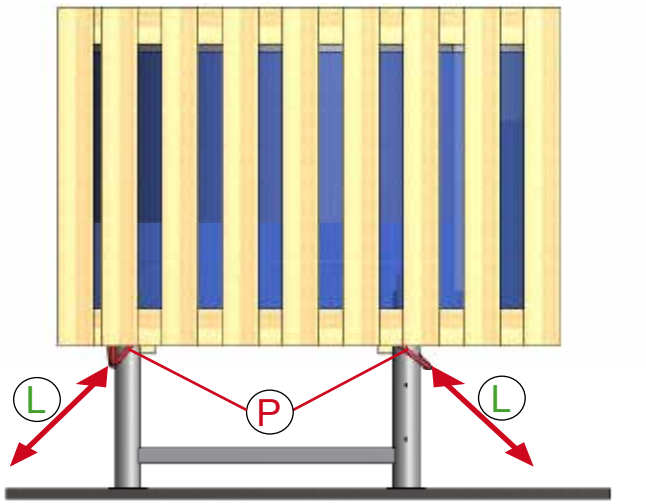
2.2 TRANSPORTING THE OVEN

Always ensure the oven to platform during transportation (see FIG.1) below



Front view: oven packing with fastening points

FIG.1



Side view: oven packing with fastening points

FIG.2

The rigging chains (P) are provided to ensure proper rigging during transportation.
It is strongly recommended to use (L) lashes (FIG.2) to prevent oven from capsizing.

2.3 MOVING THE OVEN

The steel frame of the oven is designed with reinforced HANDLING AND LIFTING POINT to allow the oven be handled and lifted with a suitable fork lift or transpallet as shown below (FIG.3).

WARNING

FOR YOUR SAFETY IT IS STRONGLY RECOMMENDED THIS OPERATION TO BE PERFORMED BY QUALIFIED PERSONNEL ONLY.
THE CENTER OF GRAVITY OF THE OVEN IS LOCATED IN A HIGH POSITION ABOVE THE GROUND

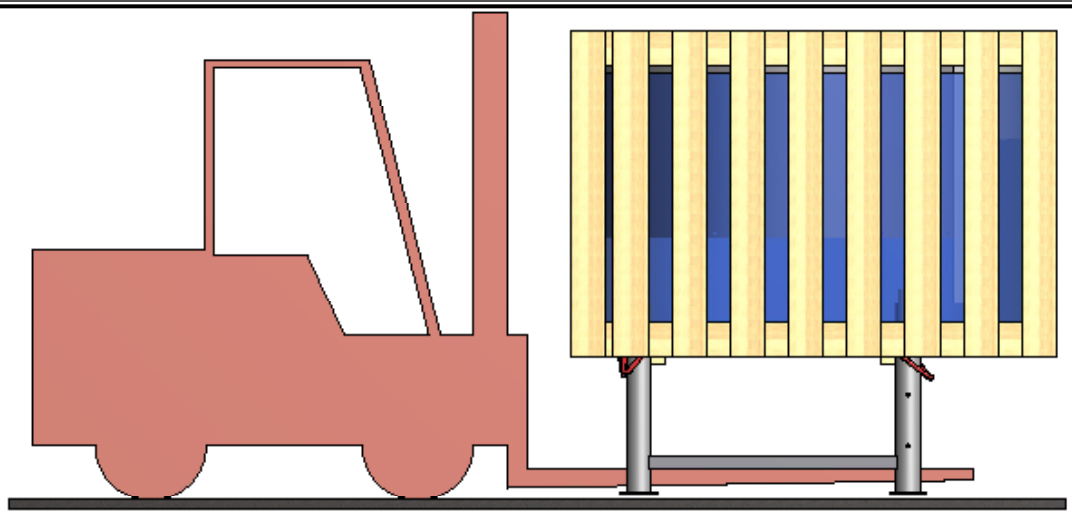
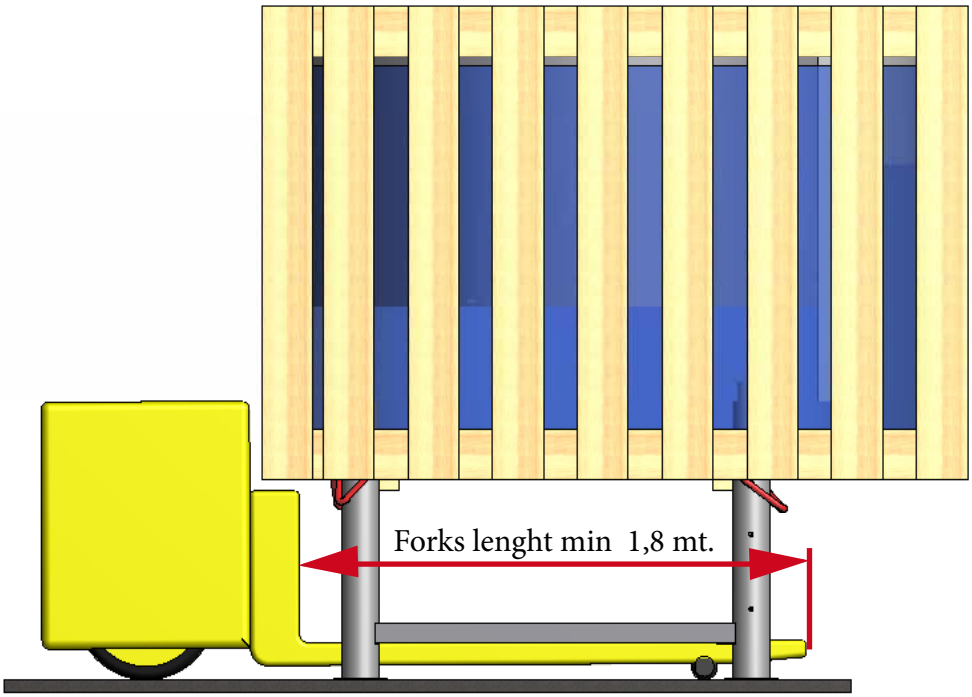
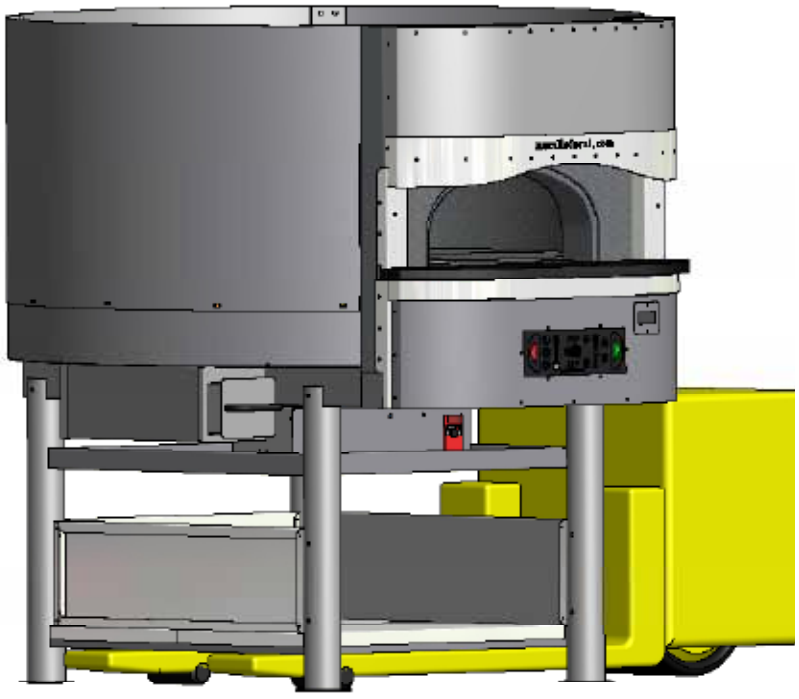


FIG.3

WARNING
THE OVEN SHOULD NEVER BE ROTATED ON ITS SIDE!



FOR YOUR SAFETY, IT IS STRONGLY RECOMMENDED THIS OPERATION TO BE PERFORMED BY QUALIFIED PERSONNEL ONLY.
THE CENTER OF GRAVITY OF THE OVEN IS LOCATED IN A HIGH POSITION ABOVE THE GROUND.



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 burners air intake. 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).
- The oven can be coated with several materials, except the ovent front, the control panel and other areas that must be left free, as shown in the layout below and (FIG. 5).

Always follow the recommended instructions and do not hesitate to contact the manufacturer for further information.

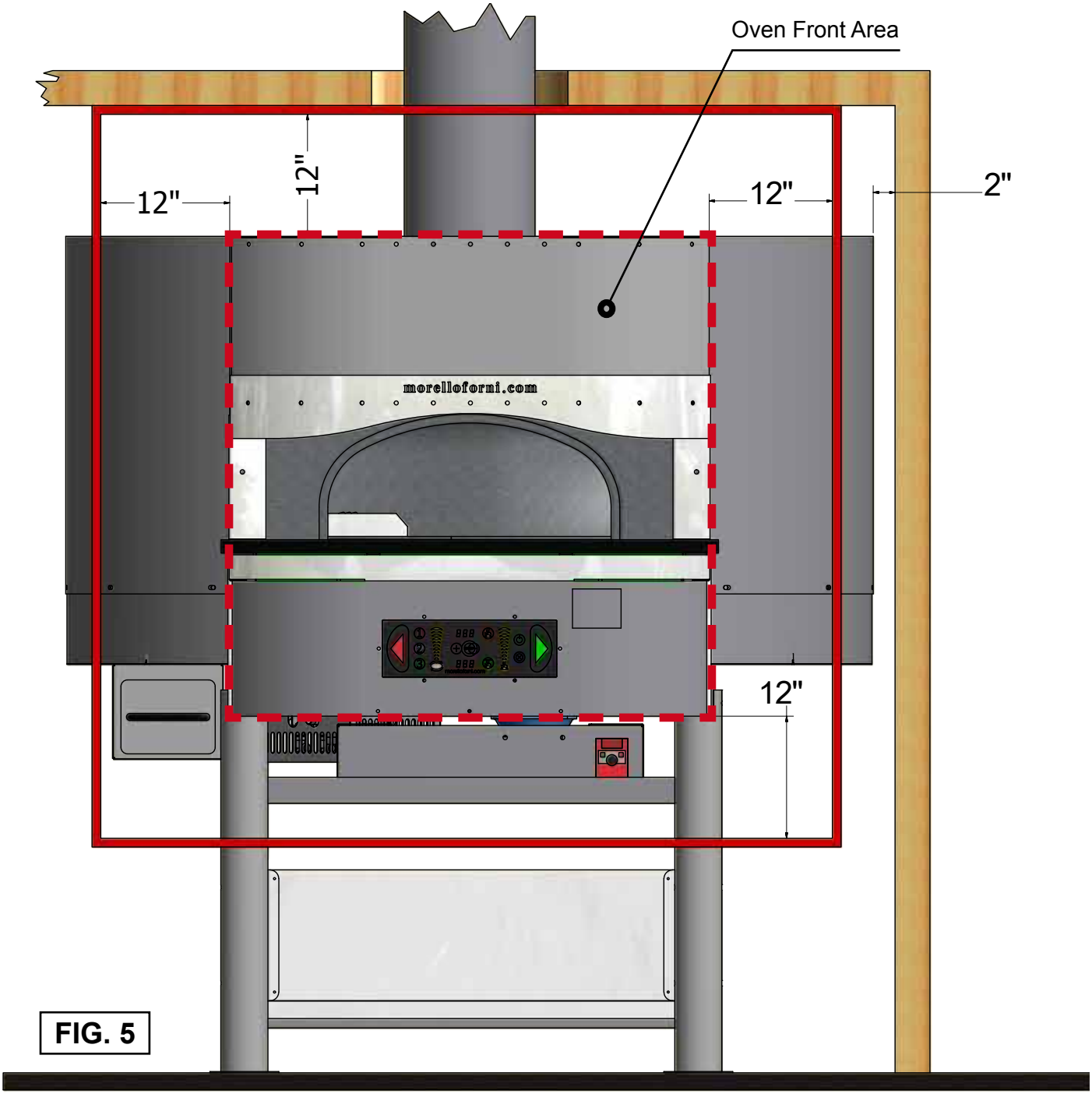


FIG. 5

2.5 LOCATION

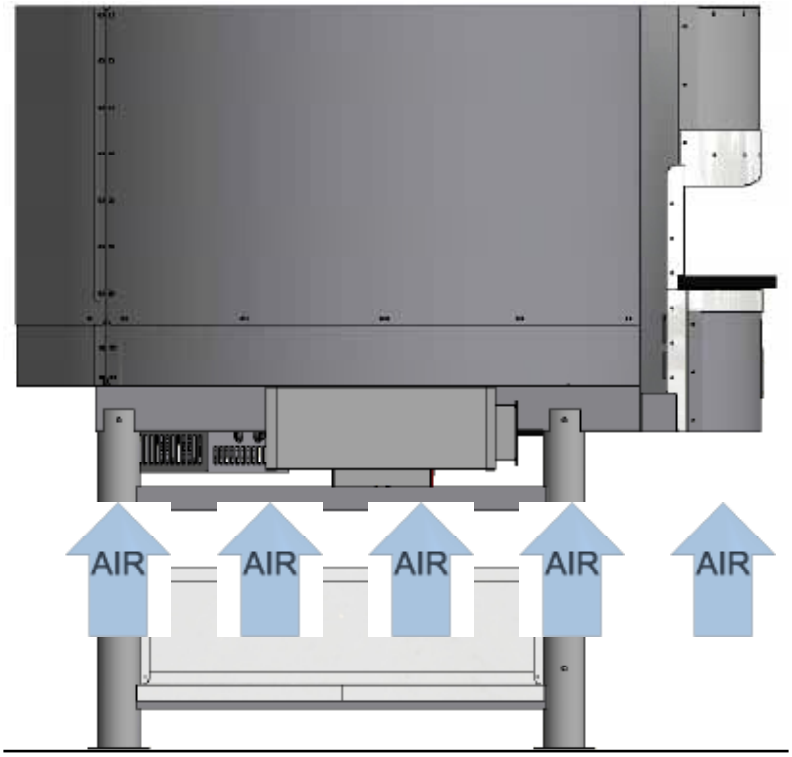
The equipment area must kept free and clear of combustible substances.
When installed, minimum clearances from combustible and non-combustible construction must be 2" at the sides and rear.

- The oven is suitable for indoor installation on combustible floor.
- Above the oven and around the Oven Front Area the intergral clearance must be of 12 inches as showed (FIG. 5)
- The installation location must allow adequate clearances for servicing and proper operation.
- A minimum front clearance of 36" is required.
- Do not obstruct the flow of combustion and ventilation air. Adequate clearance for air opening into the combustion chamber must be provided.
- Do not permit fans to blow directly at the pizza oven. Wherever possible, avoid open windows next to the pizza oven. Avoid wall-type fans which create air cross currents within the room.

WARNING

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

FIG. 4



2.6 INSTALLATION CODES AND STANDARDS

These ovens must be installed in accordance with:

- State and local codes.
- National Fuel Gas Code, ANSI-Z223.1 (latest edition). Copies may be obtained from The American Gas Association, Inc., 1515 Wilson Blvd., Arlington, VA 22209.
- National Electrical Code, ANSI/NFPA-70 (latest edition). Copies may be obtained from The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

2.7 GAS CONNECTION

The ovens come preset to work with the gas supply characteristics specified in the purchase order and reported in the oven plate; to change Gas type it is necessary to replace gas nozzles and adjust combustion air adequately; specific instructions for these operations are provided in our “Oven range FGRi Standard and FGI Standard instructions for gas burners adjustment to Natural or GPL gas” booklet, provided separately.

WARNING
Always check the Gas Supply pressure and provide a pressure regulator if necessary.
Always install a check valve on the arriving Gas Supply hard pipe and make the connection to the appliance using a brand new suitable certified flexible metal pipe.

The inlet manifold (10) for connection to the main gas supply is a ¾ “ NPT, located underneath the front panel, left side. When connecting fittings to the inlet manifold hold back on this pipe with a back-up wrench to relief any excess strain on the internal oven piping.

The drop in gas pressure with all appliances in operation should not exceed 1/2" water column prior to the regulator. Be sure the meter has sufficient capacity for all appliances on the line when all are in operation.

NOTE: When checking Supply pressure be sure that all the other equipment on the same gas line are on.

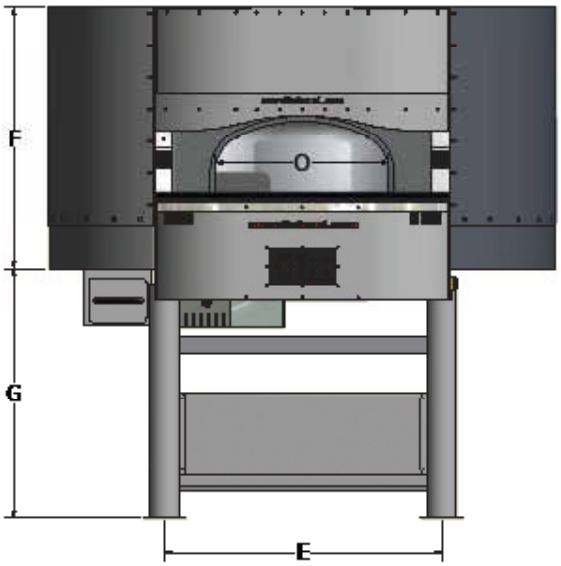
WARNING

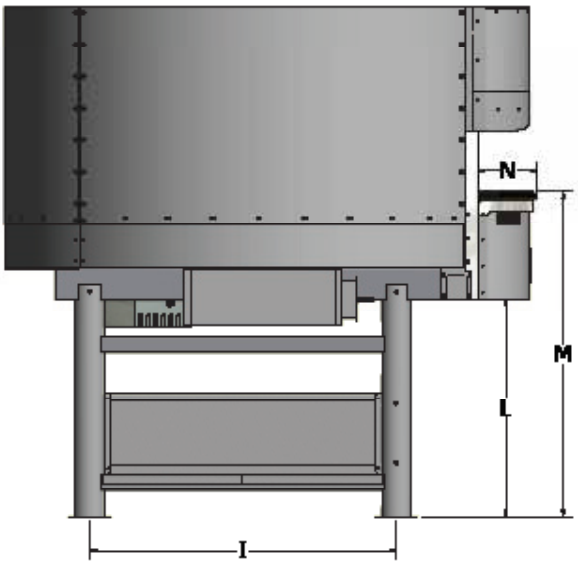
PRIOR TO LIGHTING, CHECK ALL GAS CONNECTION JOINTS AND FITTINGS FOR LEAKS. USE A NON CORROSIVE LEAK DETECTION FLUID. DO NOT USE AN OPEN FLAME TESTING THE GAS SUPPLY SYSTEM

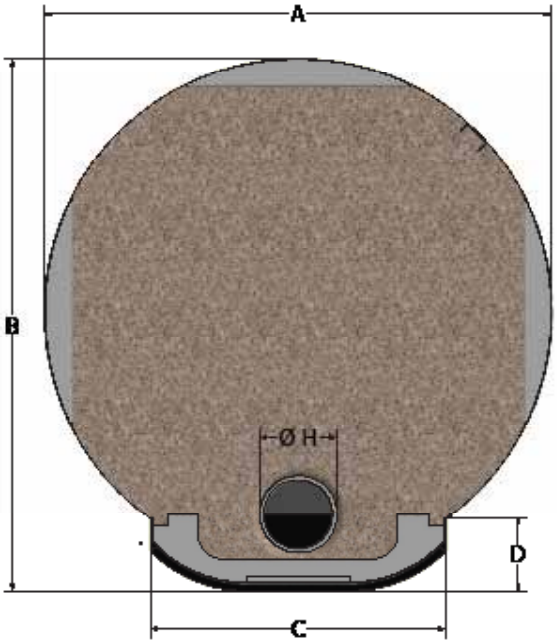
MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

STATIC PIZZA OVEN: STANDARD FINISHING DATA SHEET

OVEN MODEL:	**FGI - FG - PGI - FM - FW**
DESCRIPTION:	**Static Hybrid gas and wood, combined or wood fired pizza oven**
REFERENCE:	**REV. 01.14**







PICTURE SHOWS OVEN FGI130
STANDARD OPERATING ON GAS AND WOOD.

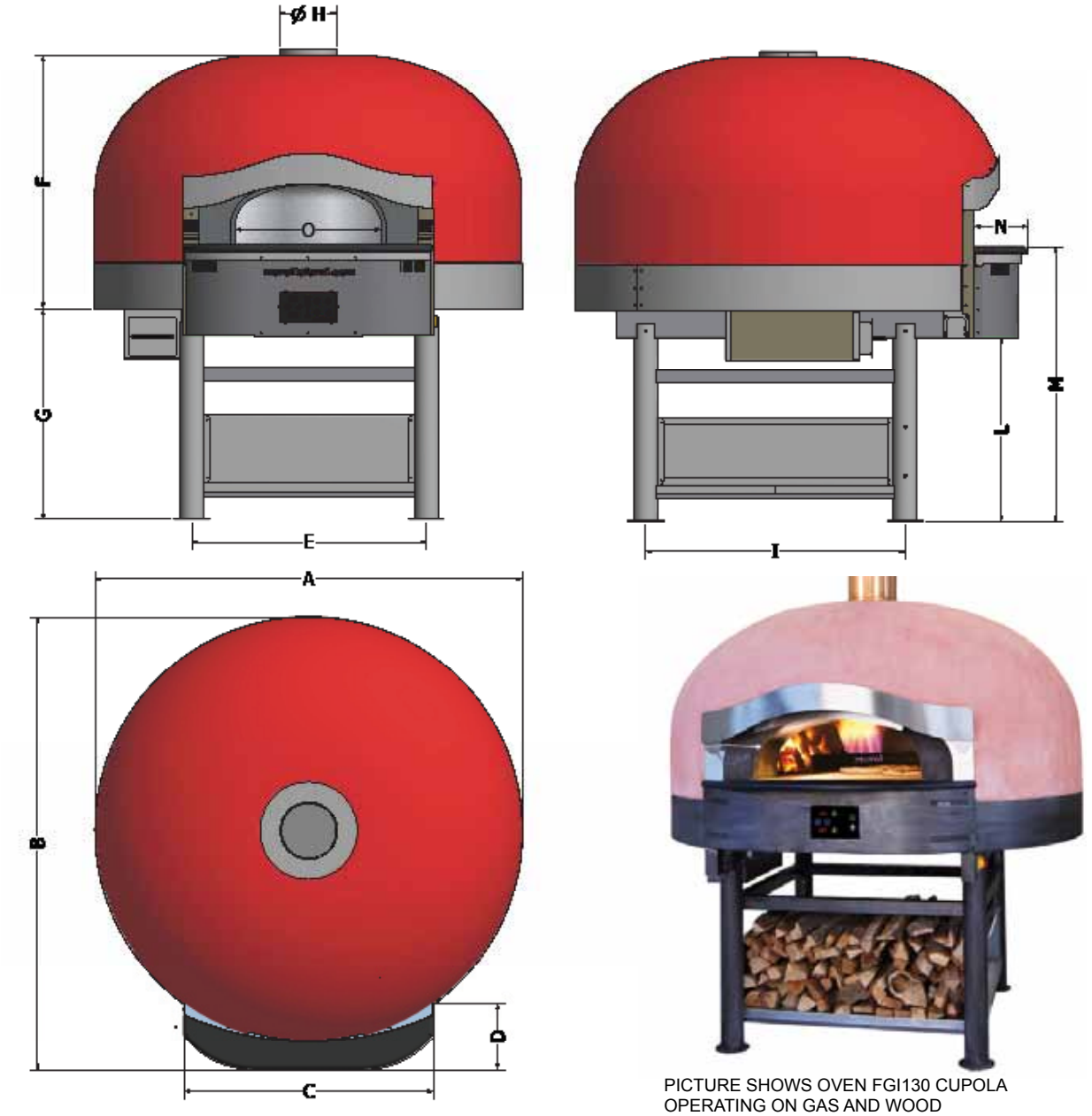
Oven Model	A	B	C	D	E	F	G	Ø H	I	L	M	N	O	Weight (Kg)
FGI110 - FG110 PGI110 - FM110 FW110	162	177	102	30	94	100	94	20	115	82	122	25	50	1700
FGI130 - FG130 PG130 - FM130 FW130	186	196	112	30	104	100	94	20	115	82	122	25	55	2100
FGI150 - FG150 PG150 - FM150 FW150	202	212	122	30	114	100	94	25	115	82	122	25	65	2500
FGI180 - FG180 PGI180 - FM180 FW180	230	245	122	30	114	126	94	25	160	85	122	25	82	3700

Sizes in centimeters are indicative and should be modified without advise at anytime.

MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

STATIC PIZZA OVEN: CUPOLA FINISHING DATA SHEET

OVEN MODEL:	**FGI - FG - PGI - FM -FW**
DESCRIPTION:	**Static hybrid gas and wood, combined or wood fired pizza oven**
REFERENCE:	**REV. 01.14**



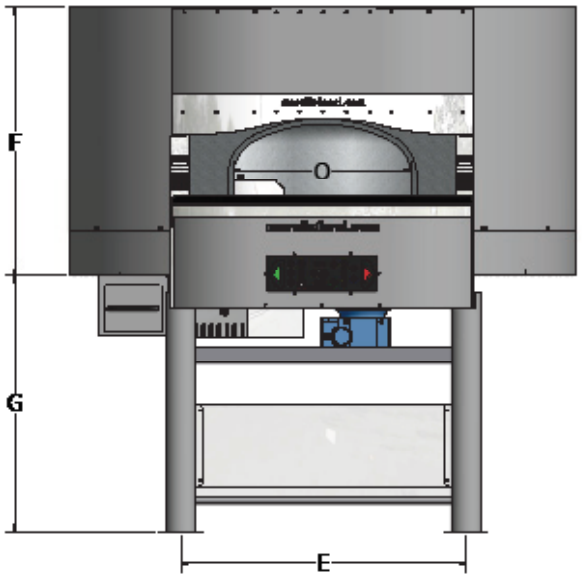
PICTURE SHOWS OVEN FGI130 CUPOLA
OPERATING ON GAS AND WOOD

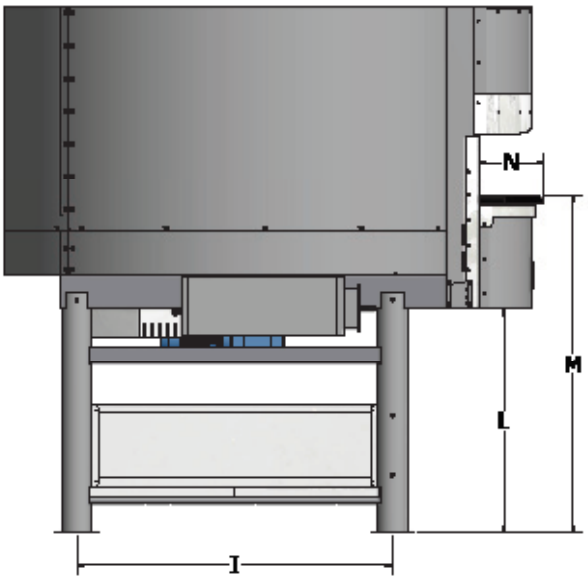
Oven Model	A	B	C	D	E	F	G	Ø H	I	L	M	N	O	Weight (Kg)
FGI110 - FG110 PGI110 - FM110 FW110	162	177	102	30	94	100	94	20	115	82	122	25	50	1800
FGI130 - FG130 PG130 - FM130 FW130	186	196	112	30	104	100	94	20	115	82	122	25	55	2200
FGI150 - FG150 PG150 - FM150 FW150	202	212	122	30	114	100	94	25	115	82	122	25	65	2700
FGI180 - FG180 PGI180 - FM180 FW180	230	245	122	30	114	126	94	25	160	85	122	25	82	3900

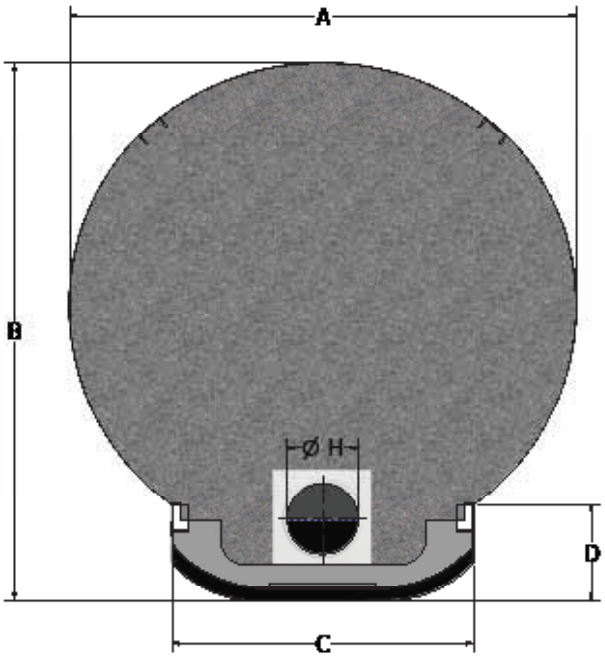
MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

ROTATING PIZZA OVEN: STANDARD FINISHING DATA SHEET

OVEN MODEL:	**FGRI - FGR - FMR - FWR**
DESCRIPTION:	**Rotating Hybrid gas and wood, combined or wood fired pizza oven**
REFERENCE:	**REV. 01.14**







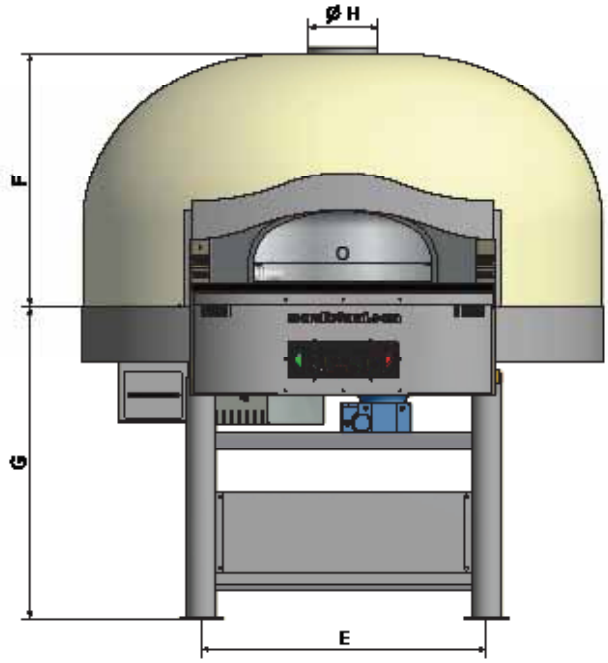
PICTURE SHOWS OVEN FGRI130STANDARD OPERATING ON GAS AND WOOD.

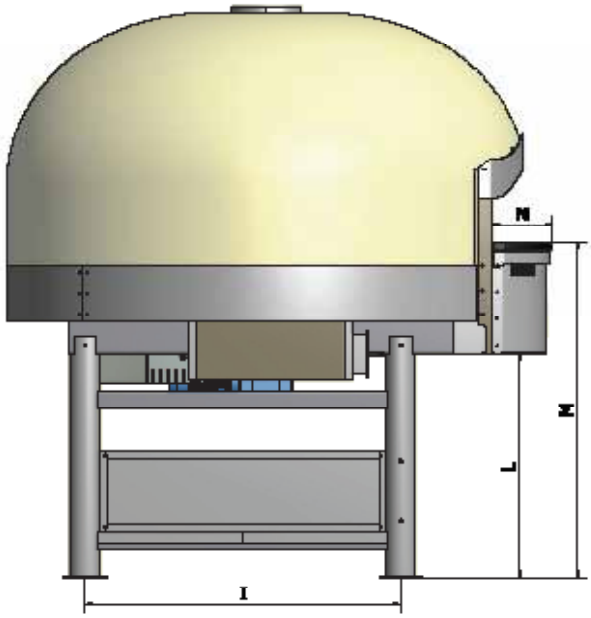
Oven Model	A	B	C	D	E	F	G	Ø H	I	L	M	N	O	Weight (Kg)
FGRI100 - FGR110 FMR100 FWR100	162	177	102	30	94	100	94	20	115	82	122	25	50	1900
FGRI110 - FGR130 FM130 - FW130	186	196	112	30	104	100	94	20	115	82	122	25	55	2300
FGRI130 - FGR150 FMR150 - FWR150	202	212	122	30	114	100	94	25	115	82	122	25	65	2700
FGRI150 - FGR160 FMR150 - FW150	230	245	122	30	114	126	94	25	160	85	122	25	82	3900

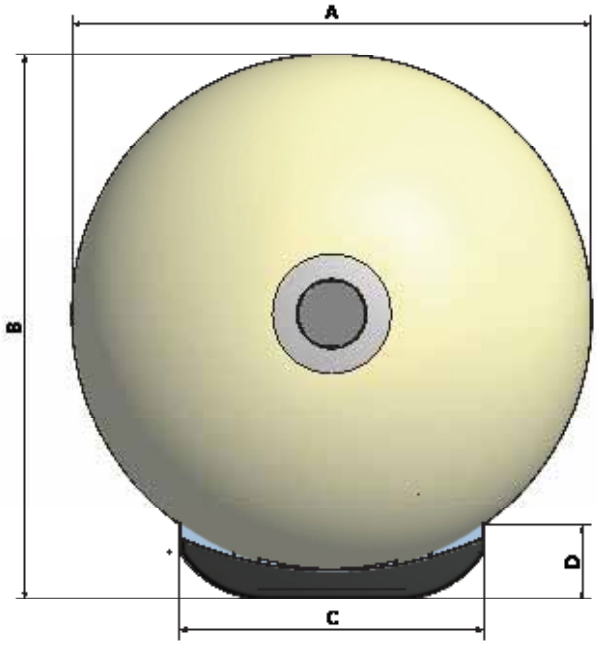
MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

ROTATING PIZZA OVEN: CUPOLA FINISHING DATA SHEET

OVEN MODEL:	**FGRI - FGR - FMR - FWR**
DESCRIPTION:	**Rotating Hybrid gas and wood, combined or wood fired pizza oven**
REFERENCE:	**REV. 01.14**







Oven Model	A	B	C	D	E	F	G	Ø H	I	L	M	N	O	Weight (Kg)
FGRI100 - FGR110 FMR100 FWR100	162	177	102	30	94	100	94	20	115	82	122	25	50	2000
FGRI110 - FGR130 FM130 - FW130	186	196	112	30	104	100	94	20	115	82	122	25	55	2400
FGRI130 - FGR150 FMR150 - FWR150	202	212	122	30	114	100	94	25	115	82	122	25	65	2800
FGRI150 - FGR160 FMR150 - FW150	230	245	122	30	114	126	94	25	160	85	122	25	82	4000

Sizes on centimeters are indicative and should be modified without advise at anytime.

2.8 AIR SUPPLY

These appliances require make-up air to replace combustion air and excess air taken out by flue.
Table (3) and (4) Page (34) and (35) report the recommended make-up air flow rate for every oven model.
Always check for adequate openings to allow required make-up air to flow in.

2.9 FLUE CONNECTION

This oven is equipped with a draft hood located on the front part of the oven; the hood collects combustion gases and cooking vapor coming out from the oven door.
The oven must be directly connected to a chimeny listed to UL-103HT in accordance to the US/Canadian armonized standard ASI Z83.11/CSA 1.8 standard for Gas Food Service Equipment, 3rd edition,darted July 2006, including addendum ANSI Z83.11b/CSA 1.8b dated January 2009, and ULC-S627, Standard for Space Heaters for use with Solid Fuels.

DO NOT obstruct the flow of flue gases from the door oven. Flue gases must be ventilated to the outside of the building through a ventilation system installed by qualified a technician.

The units are provided with an exhaust flue collar on top of the draft hood (see FIG. 16, Page 6);
Table (3) and (4) shows the collar size depending on the oven model.
These units, to be used to bake pizza and other wheat flour based products:

- When working on gas only with no wood burning they do not produce any igniting or sparking particle; in this case Flue gas temperature do not exceed 160°C (320°F) and the oven is suitable for connection to Type B Gas Vent when used with the draft hood provided.
- When burning wood Flue gas temperature may exceed 160°C (320°F) and an independent Flue evacuation system is required.

2.10 ELECTRICAL CONNECTIONS

The wiring diagram is located at the last page of this manual.

The power supply must be double phase with a voltage of 208 V +/-10% 60 Hz.
To enhance safety, always observe the following instructions.

- Verify that the power supply has the same rating of the oven.

WARNING

ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.
DISCONNECT ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH TO INDICATE YOU ARE WORKING ON THE CIRCUIT.
APPLIANCES EQUIPPED WITH A CONNECTION BOX SUITABLE FOR CONNECTION TO A ½" CONDUIT.

The oven must be connected to the power mains by a qualified and authorized technician.
All wiring should conform the Local and NEC.
These ovens require a single phase/ two phase + ground wire; Ampere rate is 4,5 A at 208V +/-10% 60 Hz with single phase /two phase connections.
The appliance must be electrically grounded in accordance with the National Electrical code ANSI/NFPA 70 or Canadian Electrical Code CSAC22.1, as appropriate.
The oven is equipped with a connection box, with terminal block inside, located on front, right side (see Fig.17, Page 6), pre-drilled to receive a 1/2" conduit.
Prior to conduit installation insert a proper strain relief (not included) in the conduit hole, then install the conduit trough the body of strain relief and fasten the strain relief with its ring.
Proceed driving a proper 2 cord + grounding wire in the conduit from the electrical panel to the connection box.
Loosen the lower 3 screws of the terminal block.
Insert the the bare wire ends in the terminal block openings (GROUNDING in the YELLOW GREEN terminal block!) and tighten the 3 screws securely (approximately 35-50 IN.LB).

2.11 ADJUSTMENT

Checking Gas Supply Pressure and Manifold Pressure

WARNING

ADJUSTMENT CAN BE PERFORMED BY QUALIFIED PERSONNEL ONLY

Ovens manufactured by Morello Forni have two independent gas safety systems called CVI (“Combined Valve and Ignition”). The two systems control the temperature of the dome and of the bedplate of the oven through the corresponding burner.
The CVI monitors and optimizes all the functions required to start and safely operate the burner controlling the status of the flame and adjusting the flow of gas supplied to the burner.
The CVI system includes a gas valve directly driven and connected to the gas ignition system.

Even if the burners systems are factory tested and preset for the supplied gas, an additional adjustment might be required.

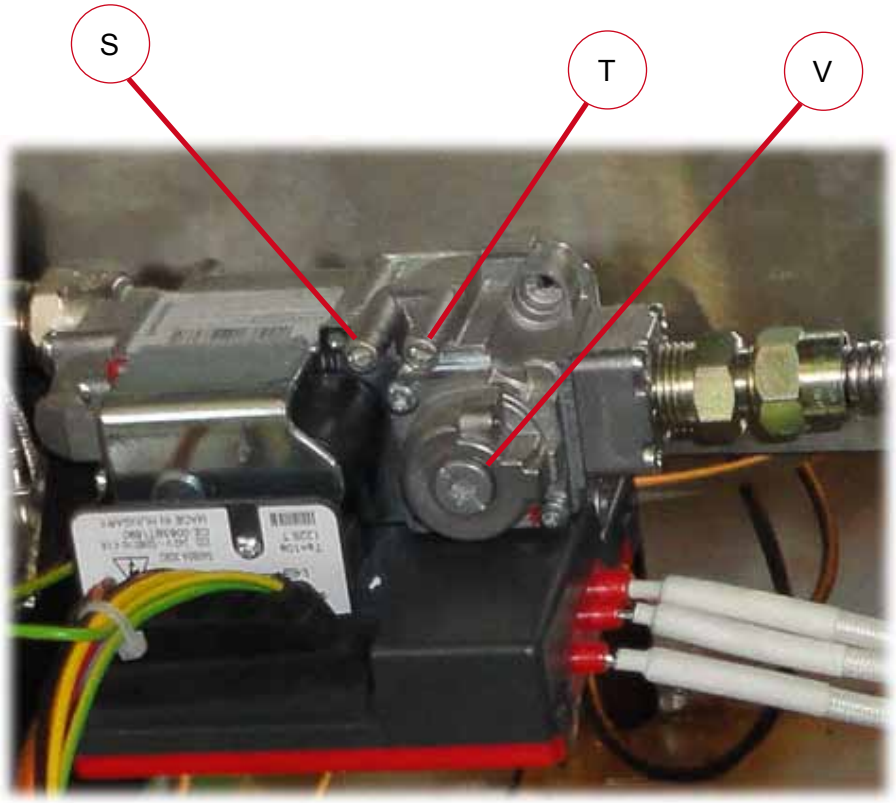


FIG. 7

Proceed as follows (see Fig above):

Pressure Taps
CVI gas valves are provided with proper fittings 9 millimeter diameter for gage connection to check both Supply gas pressure (S) and Manifold pressure (T), see Fig.7
Before checking the pressure rotate counter-clockwise the relevant screw of a half turn and connect gage tube to nipple. Ensure that screw is retightened after testing.

Outlet pressure adjustment
- Start-up appliance in order to have gas input to burner.
- Check gas pressure through the gauge connected to outlet pressure tap.
- Remove cap screw (V) to gain access to pressure regulator adjustment screw.
- Insert a proper gauge (i.e. a 20” IWC water gauge)
- Slowly turn adjustment screw with a small screwdriver until the burner pressure required is indicated by the pressure gauge. Turn adjustment screw clockwise to increase or counterclocwise to decrease gas pressure to the burner.
- Remove Pressure Gauge.
- Replace and tight pressure regulator cap screw (V).

WARNING:

During any test pressure of gas supply system if pressure is in excess of 1/2 psig (3.45 kPa), the oven and its individual shut-off valve must be disconnected from the gas supply piping system.
The appliance must be isolated from the gas supply system by closing its manual shutoff valve during any pressure testing of the gas supply system at test pressure equal or less than 1/2 psig (3.45 kPa).

CHAPTER 3: INSTRUCTIONS FOR USERS

3.1 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.

WARNING

THE OVEN AND ITS PARTS MIGHT BE HOT. USE CARE WHEN OPERATING AND CLEANING THE OVEN.

WARNING

BEFORE ATTEMPTING TO LIGHT UP BURNERS ALWAYS REMOVE FRONT COVER FROM OVEN CENTRAL DOOR

DO NOT CLOSE CENTRAL OVEN DOOR WITH COVER WHEN BURNERS AND/OR WOOD FIRE ARE ON

FRONT COVER CAN BE PLACED ON OVEN CENTRAL DOOR ONLY WHEN BURNERS AND WOOD FIRE ARE OFF

ALWAYS CHECK THAT FLUE EXTRACTION IS ON – IF NOT SWITCH OFF THE OVEN

ALWAYS ALLOW A 5 MINUTES COMPLETE SHUT OFF PERIOD BEFORE THE APPLIANCE IS RELIGTHTED

FOR YOUR SAFETY

IN CASE OF DANGER SWITCH OFF THE OVEN

Turning ON the oven
Open the gas check valve supplying gas to the oven.
Turn the main power ON/OFF switch to ON.
Switch on the oven touching the relevant icon on the touch screen; the icon will turn from red to green

Turning OFF the oven
Switch off the oven touching the relevant icon on the touch screen; the icon will turn from green to red.
Turn the main power ON/OFF switch to OFF.
Close the gas check valve supplying gas to the oven.

Lighting UP the Dome burner
Touch the upper burner icon on the touch screen enabling the dome burner; the icon will turn from red to green an the CVI system will ignite automatically dome burner depending on the preset dome temperature.

Setting Dome temperature
Touch for 4 seconds the dome temperature indicator until number start flashing, set desired temperature touching + or – icons, wait 5 seconds until temperature indicator stops flashing

Modulating Dome burner flame
Touch for 4 seconds the dome flame modulating icon until starts flashing, set desired level touching + or – icons, wait 5 seconds until icon stops flashing

Shutting OFF Dome burner
Touch the upper burner icon on the touch screen disabling the dome burner; the icon will turn from green to red an the CVI system will shut off automatically the dome burner.

Lighting UP the Bedplate burner
Touch the lower burner icon on the touch screen enabling the bedplate burner; the icon will turn from red to green an the CVI system will ignite automatically bedplate burner depending on the preset bedplate temperature.

Setting Bedplate temperature
Touch for 4 seconds the bedplate temperature indicator until number start flashing, set desired temperature touching + or – icons, wait 5 seconds until temperature indicator stops flashing

Shutting OFF Bedplate burner
Touch the lower burner icon on the touch screen disabling the bedplate burner; the icon will turn from green to red an the CVI system will shut off automatically the bedplate burner.

3.2 BREAK IN PROCEDURE

Your oven is equipped with a refractory hearth, it is critical that the following break-in procedure be followed before beginning any cooking operations. Failure to follow this procedure will void any warranty.
Turn the oven on and set both the dome and bedplate thermostats to 160°C (320°F). Allow the oven to operate at this temperature for a minimum of 8 hours. Let the oven cool down for 4-6 hours and turn on the oven again setting the bedplate thermostat to 200°C (392°F) and the dome to 250°C (482°F). Allow the oven to operate at this temperature for a minimum of 8 hours. Let the oven cool down for 4-6 hours and turn on the oven again setting the bedplate thermostat to 200°C (392°F) and the dome to 300°C (572°F). Allow the oven to operate at this temperature for a minimum of 8 hours.
This procedure will reduce to minimum the possibility of flaws caused by water absorption.
NOTE: once the refractory parts have been dried, any spilling of water inside the oven causing even partial soaking of refractory hearth will require the break-in procedure be repeated.

WARNING

- **In this phase, it is forbidden to bake 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 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.**

WARNING

THE MANUAL DOOR CAN BE USED ONLY WHEN THE OVEN IS OFF TO MAINTAIN THE INTERNAL RESIDUAL TEMPERATURE BETWEEN TWO BACKING CYCLES.

3.3 OVEN INTERNAL AREA DESCRIPTION AND USE.

The floor of the Wood Burning Area (6) that can be used for burning wood, is equipped by some holes comunicating with the extractable ash drawer.
The ashes falling through the holes in to the ash drawer can be easily removed extracting it.
Empty the drawer only when the oven is off and the fire of wood is totally estinguished.
Do not extract the drawer during oven is operating.
The ovens Range FGRI are equipped by an automatic cleaning system.
The Cleaning Path Area (10) is brushed thanks to four rotating brushes.
The resulting dust is conveyed into the ash drawer.
Empty the ash drawer daily when the oven is off and the fire of wood is totally estinguished.
On the Rotating Bedplate (9) is possible to bake food such as bread, pizza and similar products directly on the refractory slabs.
Other kind of foods can be baked in baking pans.
Even the area of the Central Stone can be employed to bake as the Rotating Bedplate.
The area (7) is a slab of natural stone where is possible to lay products to be baked into the oven or to take out of the oven the baked products.
The ovens range FGRI and depending models are all equipped with rotating bedplate.
The ovens range FGI and depending models are not equipped with rotating bedplate.
These ovens can be used firing wood and gas in different way depending by the oven configuration and model:

- FGRI and FGI ovens can operate as better required by the operator on gas and/or wood fired (Hybrid Oven).
- FGR and FG ovens can operate only with gas fired (Gas fired oven).
- FMR and FM ovens can operate on wood fired even if rotating bedplate is heated by gas fired (Combined Oven).
- FWR and FW ovens can operate as wood fired oven only (Wood Fired Oven).

The Dome Gas Burner is installed inside the oven and it is protected by an iron structure.
The Dome Gas Burner is a modulating burner and the operator can adjust its flame intensity.
The Bedplate Burner operates as ON-OFF and it is thermostatically controlled.
The oven Gas Burners are operated thanks to the oven control panel. See detailed instruction **OVEN PROGRAMMING AND CONTROL SYSTEM "INTELTOUCH-MF10"**

The oven can be used only if the oven doorway is open.
Is not allowed to start the oven when the doorway is cloosed with the oven door.
Observe a minimum period of 5 minutes before to restart the oven when restarting is needed.
The ovens Range FGRI and FGI can operate:

- on gas as Gas Fired Oven (FGR and FG model)
- on gas and/or wood fired as Hybrid Oven (FGRI and FG model)
- on wood and gas fired as mixed wood and gas fired oven (FMR and FM model)
- as wood fired oven only (FWR and FW model)

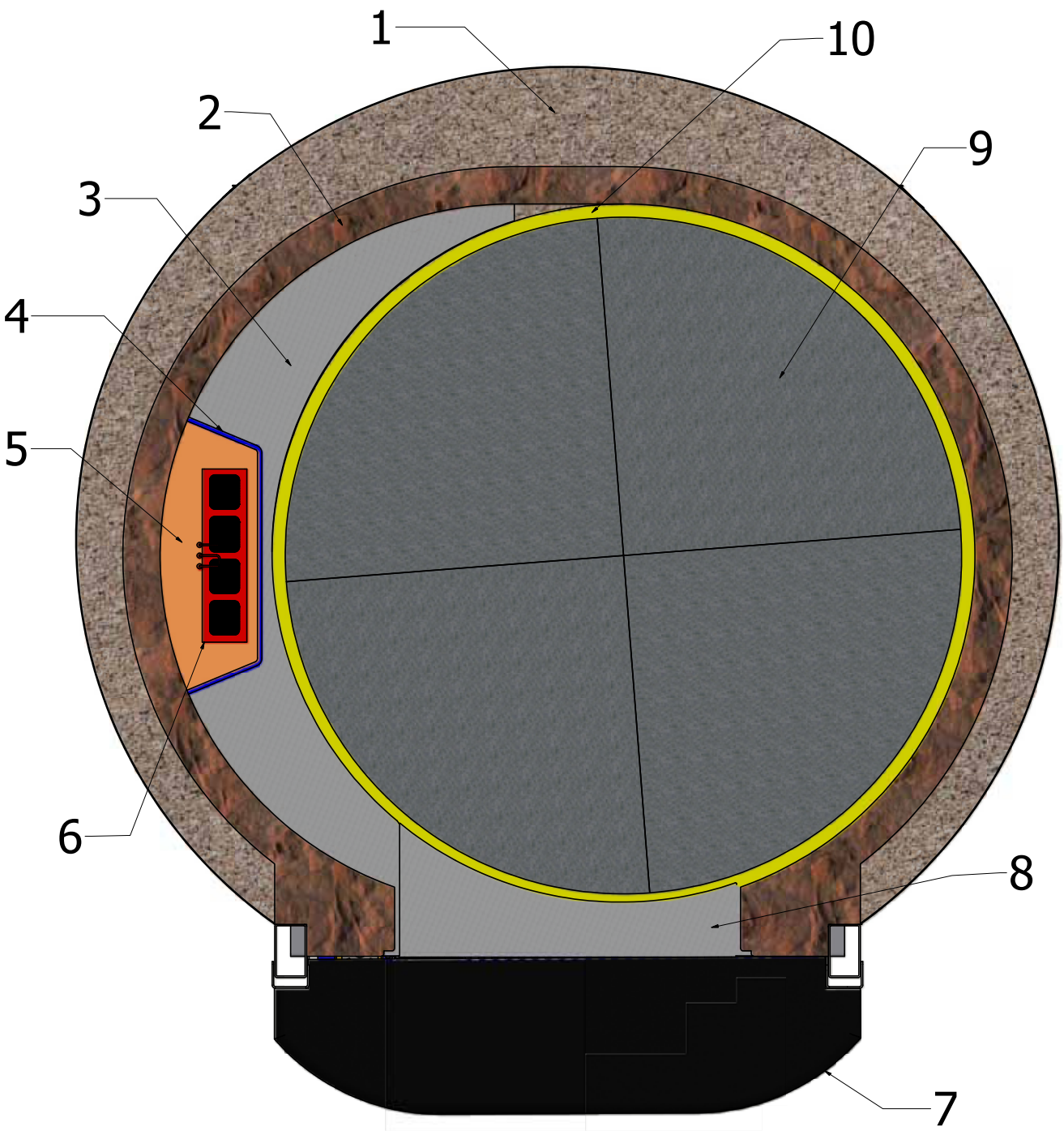
Beware: ovens range FGRI and FGI allow to burn the wood only if located within the wood burning area (6) bounded by the iron separator (5).
The hourly amount of wood used for combustion depends by the size of the oven.

3.4 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.
3) Once the oven is lit, ensure the fire is correctly supplied with fuel, remembering not exceed the maximum rate of wood on kg. / hr. The recommended average consumption rate is 3 to 6 Kg. / hr. depending by te oven model.
4) The oven thermostat system 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 baking 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 finish to use the oven, wait for extinguishing of the flame of residual wood fire and switch-off the auxiliary plate burner, then close the oven door in order to retain the residual heat for the next work cycle.

MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

FGRI STANDARD RANGE : FACTORY PREDISPOSED ONLY GAS OPERATING OVEN INTERNAL CONFIGURATION	
MODELLO: MODEL:	**FGR - Standard**
DESCRIZIONE: DESCRIPTION:	**Oven section view at baking level surface**
RIFERIMENTO: REFERENCE:	**15.12.12**



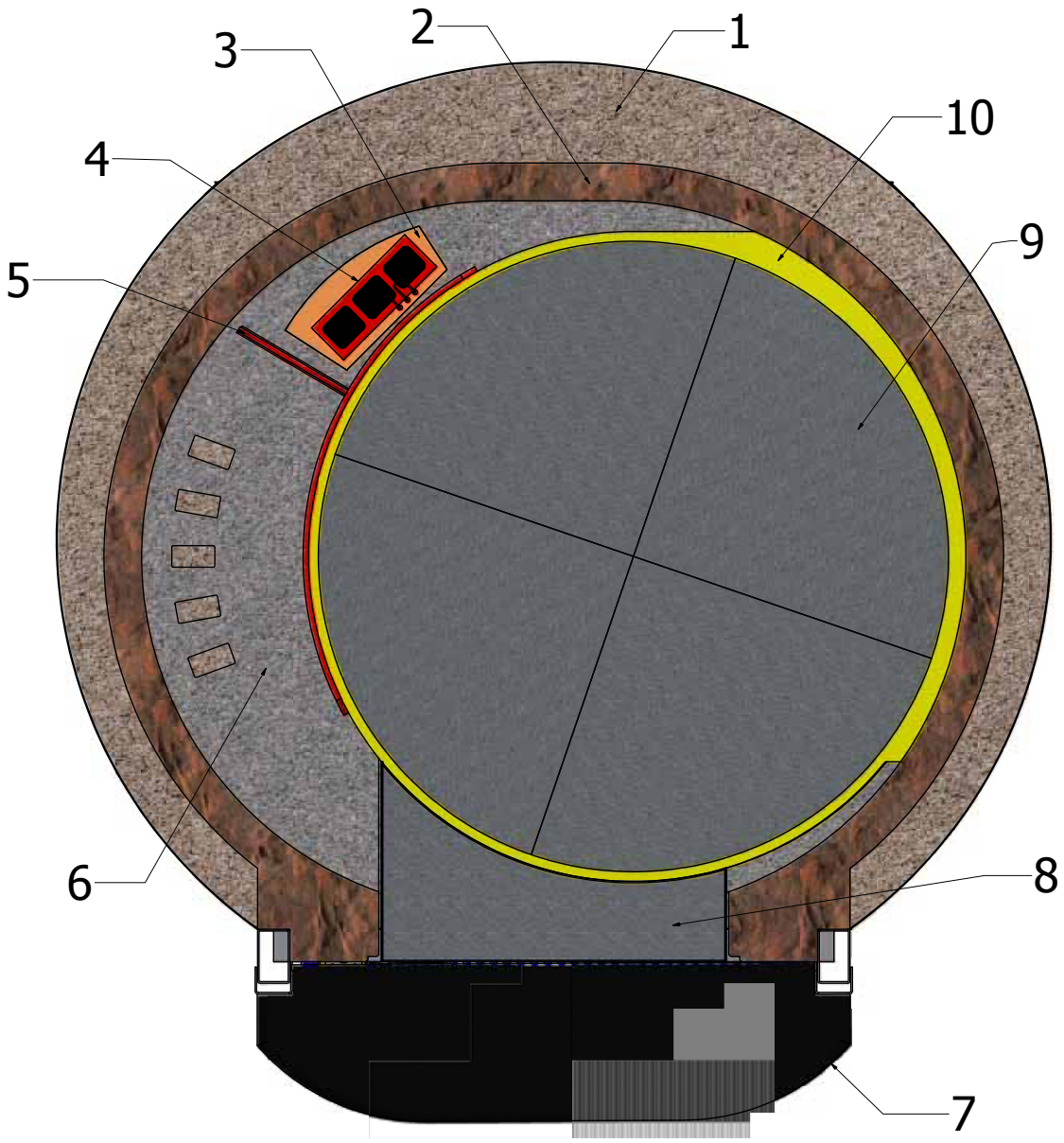
Graphic references:

1) - Insulation
2) - Refractory Dome
3) - Side Stone
4) - Burner protection
5) - Burner Area
6) - Dome Gas Burner
7) - Natural Stone Shelf
8) - Central Stone
9) - Rotating refractory bedplate
10) - Cleaning path

MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

FGRI STANDARD RANGE : FACTORY PREDISPOSED GAS AND/OR WOOD FIRED OPERATING INTERNAL OVEN CONFIGURATION

MODELLO: MODEL:	**FGRI - Standard**
DESCRIZIONE: DESCRIPTION:	**Oven section view at baking level surface**
RIFERIMENTO: REFERENCE:	**15.12.12**

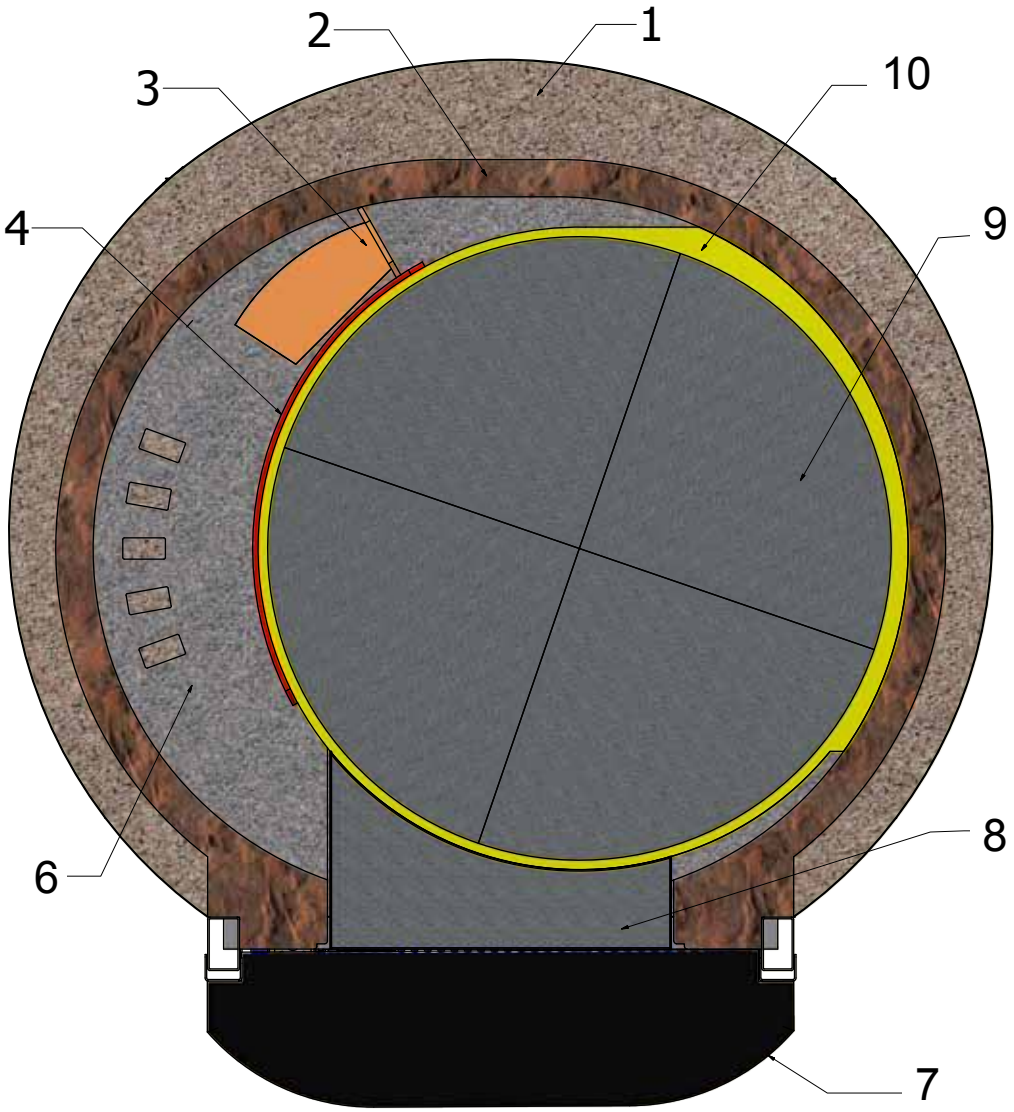


Graphic references:

1) - Insulation
2) - Refractory Dome
3) - Burner Area
4) - Dome Gas Burner
5) - Burner Separator
6) - Wood Burning Area
7) - Natural Stone Shelf
8) - Central Stone
9) - Rotating Bedplate
10) - Cleaning path

MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

FGRI STANDARD RANGE : ON SITE CONVERSION WOOD FIRED OPERATING INTERNAL OVEN CONFIGURATION	
MODELLO: MODEL:	**FMR - Standard; FWR - Standard**
DESCRIZIONE: DESCRIPTION:	**Oven section view at baking level surface**
RIFERIMENTO: REFERENCE:	**15.12.12**



Graphic references:

1) - Insulation
2) - Refractory Dome
3) - Steel Cap
4) - Steel Partition
6) - Wood Burning Area
7) - Natural Stone Shelf
8) - Central Stone
9) - Rotating Bedplate
10) - Cleaning Path

3.5 OVEN OPERATING AS GAS FIRED OVEN

Remove the oven door.
Set on oven control panel the operating temperatures and activate both burners.
The Dome Gas Burner can be adjusted as power by the Operator.
The Bedplate Burner operates as ON-OFF and it is thermostatically controlled.

3.6 OVEN OPERATING ON GAS AND WOOD AS HYBRID OVEN

Remove the oven door.
Switch on the oven and set dome and bedplate temperature, start both gas burners.
Adjust the Dome Burner around 50% of power.
Start the wood of fire inside the area wood burning area (6).
Fire the wood in adequate hourly amount and piece within the same area only (6).
About consumption of wood see the table: “Oven model and hourly consumption of wood”.
When the oven temperature setting has been reached firing wood, Dome Gas Burner operates maintaining the dome temperature of setting, it will start when the fire of wood cannot maintain the required temperature only.
The underfloor burner operates heating the bedplate as per temperature bedplate setting.
The underfloor burner action is partially related only with the action of firing of wood.
The underfloor burner action is required to speed the oven warm up, and to ensure the proper bedplate temperature, ensuring the best oven performances against intensive period of work.

3.7 OVEN OPERATING ON WOOD AND GAS AS COMBINED OVEN

Remove the oven door.
Switch on the oven and set the bedplate temperature only.
Start the bedplate gas burners only.
Start the wood of fire inside the area (6).
Feed the fire steadily and warm up the oven untill the required dome temperature.
Burn quantity and size of wood adapted to the size of the oven.
The oven dome temperatures is shown on the control panel of the oven.
The underfloor burner operates heating the bedplate as per temperature bedplate setting.
The underfloor burner action is partially related only with the action of firing of wood.
The underfloor burner action is required to speed the oven warm up, and to ensure the proper bedplate temperature, even in case the oven is loaded of work, ensuring the best oven performances during intensive period of work.

3.8 OVEN OPERATING ON WOOD ONLY AS WOOD FIRED OVEN

Remove the oven door.
Start the wood of fire inside the wood burning area (6).
Feed the fire steadily and warm up the oven untill the required temperature.
Burn quantity and size of wood adapted to the size of the oven.
The oven temperatures are shown on the control panel of the oven when this is turned on.

Beware: ovens range FGRI, FMR,FWR allow to burn the wood only if located within the area (6) bounded by the iron separator (5).
The hourly amount of wood used for combustion depends by the size of the oven.

Oven model and hourly consumption of wood.
- FGRI 100 = 3 kg / hr
- FGRI 110 = 3 kg / hr
- FGRI 130 = 4 kg / hr
- FGRI 150 = 6 kg / hr

3.9 SWITCHING OFF THE OVEN.

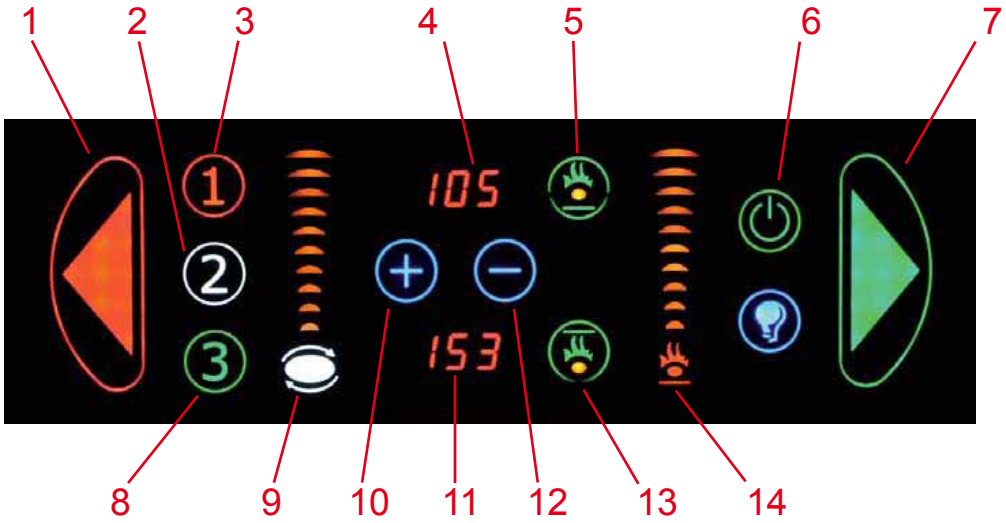
At the end of the working period, turn off the gas burners.
Leave extinguish the flame of residual wood fire if present.
Close the supply gas valve.
Turn off the main switch of the oven.
Observe a minimum period of 5 minutes before to close the oven doorway with the oven door.

Chapter 4: OVEN PROGRAMMING AND CONTROL SYSTEM “INTELTOUCH-MF10”

4.1 OVEN COMMAND AND INTERFACE.

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.
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.



4.2 COMMANDS AND ICONS.

1) Red arrow button
2) Button no. 2
3) Button no. 1
4) Dome temperature display
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 display
12) Value decreasing button
13) Bedplate burner button
14) Dome burner flame modulator button
15) Light on/off button

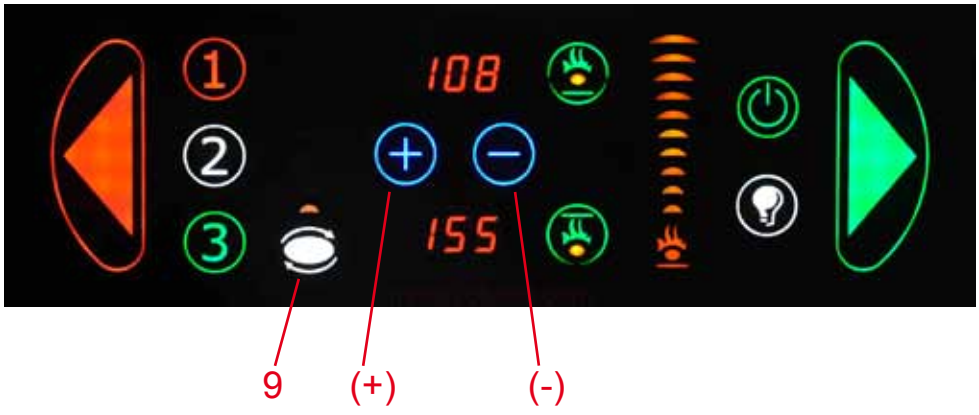
TURNING BEDPLATE COMMANDS.

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 recorded.



4.3 BURNERS COMMANDS DESCRIPTION

It is possible to activate independently the Oven two gas burners by specific icons switch on/off for dome and bedplate burners.
Pressing relating icon (5) “Dome burner button”
Or (13)”Bedplate burner button”, can be enabled 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 not enabled to function.
Reflecting dome or bedplate temperature, Relating burner - when enabled - can start To heat automatically the oven.
Yellow led of signalization is positioned 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 enabled the burner can start on automatically, heating the oven up to setting Temperature reflected by relating monitor for dome or bedplate.
When the setting temperature has been reached the burner and relating led in the middle of own icon switch off.

- Dome Burner: not enabled
- Dome Burner led: on
- Dome Burner status: OFF

- Bedplate Burner: enabled
- Bedplate Burner led: on
- Bedplate Burner status: OFF

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

- Bedplate Burner: not enabled
- Bedplate Burner led: off
- Bedplate Burner status: OFF

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

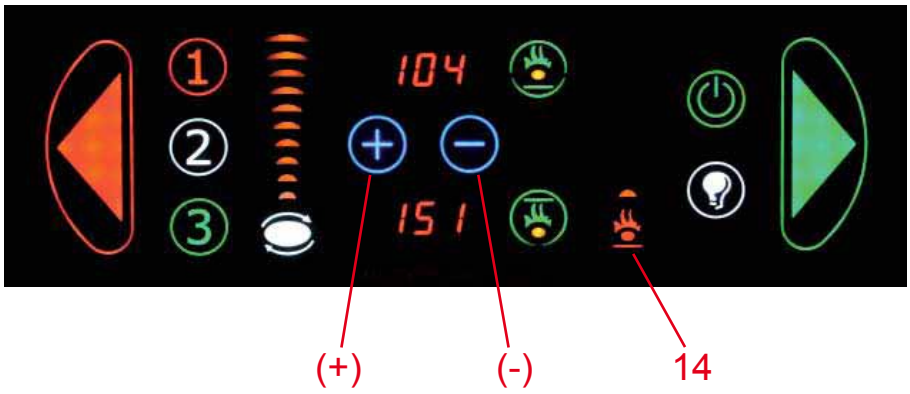
- Bedplate Burner: enabled
- Bedplate Burner led: off
- Bedplate Burner status: OFF

4.4 TEMPERATURE SETTING

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.

4.5 DOME BURNER FLAME TUNING

Dome burner is modulating, flame can be settled Continuatively from minimum to maximum by first Onetouch 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 flame level becomes record.



4.6 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.

4.7 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 FGR 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 churn out products without troubles.
After batch-in phase, user touch icon “1” and recall programme recorded 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.

4.8 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..

Chapter 4: CLEANING AND MAINTENANCE

4.1 CLEANING THE OVEN

- Brush the cooking top with a brass brush.
- If food residuals are present on the cooking top, try removing them as much as possible with a baking shovel and leave the rest to dry so that it can be removed a few minutes later.
- The baking residues found in the cooking area, can be brushed into the opening located between the rotating bedplate and the oven dome, causing it to drop into the central debris collection drawer.
- We recommend to clean the debris collection drawer daily and, during intensive use.
- Never use water or other liquids to clean the inside of the oven.
- Avoid striking the cooking shelf while cleaning it as this can cause damage.
- The oven neutralizes the odors of previously cooked food every time it reaches the cooking temperature typically upper than 250 Centigrade.
- Use damp clothes without detergents to clean external surfaces of the oven.
- To clean the touchpad use a damp cloth with standby mode on. How to set standby mode on: press and hold command “+” almost 5 seconds. A countdown will appear on the screen, showing seconds remaining on standby mode.

4.2 MAINTENANCE

WARNING THE OVEN AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING AND CLEANING THE OVEN VENT

This oven is manufactured to last long with very little maintenance, to be performed by authorized Personnel only.
It is recommended to contact annually a Morello Forni representative to arrange a control to the oven.
Weekly check visually the flame plumes for proper combustion.
Monthly open the front panel and blow any residue from electric circuitry.
Annually, when the oven is cool, check the flue and clear any obstructions.

Service and Parts Information
To obtain service and parts information concerning this oven, contact the Morello Forni Dealer in your area (refer to listing supplied with the oven), or Morello Forni Service Department at the address or phone number shown on the front cover of this manual.

4.3 TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES
Too Much Bottom Heat Uneven Backing	1. Bedplate Thermostat improper setting. 3. Temperature too low. 4. Improper operation. 5. Bedplate and/or Dome thermostats improper setting
Too Much Top Heat	1. Dome Thermostat improper setting. 2. Temperature too high.
Dried Out Products	1. Temperature too low. 2. Baking time too long.
Poor Ignition	1. Insufficient input. 2. Poor air-gas adjustment (contact your local Morello Forni Dealer).

Morello Forni
MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

TECHNICAL DATA SHEET: TABLE 1

REF	**OVEN RATINGS**
DATE	**01-2014**

TABLE 1	Natural Gas				Propane Gas LP			
Oven Model	Total Input Rate (Btu/hr)	Nos. of burners and Input Rate (BTU/hr)		Manifold Pressure IWC	Total Input Rate (Btu/hr)	Nos. of burners and Input Rate (BTU/hr)		Manifold Pressure IWC
		Bedplate	Dome			Bedplate	Dome	
FGR110 FG110	136.000	1 x 36.000	1 x 100.000	5.4	85,300	1 x 28.000	1 x 57.300	10.5
FGRi100 FGI110	136.000	1 x 36.000	1 x 100.000	5.4	85.300	1 x 28.000	1 x 57.300	10.5
FMR100 FM110	36.000	1 x 36.000	no	5.4	28.000	1 x 28.000	no	-
FWR100 FW110	-	no	no	-	-	no	no	-
FGR130 FG130	136.000	1 x 36.000	1 x 100.000	5.4	85.300	1 x 28.000	1 x 57.300	10.5
FGRi110 FGI130	136.000	1 x 36.000	1 x 100.000	5.4	85.300	1 x 28.000	1 x 57.300	10.5
FMR110 FM130	36.000	1 x 36.000	no	5.4	28.000	1 x 28.000	no	-
FWR110 FW130	-	no	no	-	-	no	no	-
FGR150 FG180	169.000	1 x 36.000	1 x 133.000	5.4	104.400	1 x 28.000	1 x 76.400	10.5
FGRi130 FGI150	169.000	1 x 36.000	1 x 133.000	5.4	104.400	1 x 28.000	1 x 76.400	10.5
FMR130 FM150	36.000	1 x 36.000	no	5.4	28.000	1 x 28.000	no	-
FWR130 FW150	-	no	no	no	-	no	no	-
FGR160 FG180	236.000	1 x 36.000	2 x 100.000	5.4	142600	28.000	2 x 57.300	10.5
FGRi150 FGI180	236.000	1 x 36.000	2 x 100.000	5.4	142600	28.000	2 x 57.300	10.5
FMR150 FM180	36.000	1 x 36.000	no	5.4	28.000	28.000	no	10.5
FWR150 FW180	-	no	no	no	-	no	no	-

Morello Forni
MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

TECHNICAL DATA SHEET: TABLE 2

REF	NOZZLES AND AIR SETTINGS
DATE	01-2014

TABLE 2	Natural Gas				Propane Gas LP			
	NOZZLE ORIFICES: q.ty x hole diameter (mm)		PRIMARY AIR SETTING (mm)		NOZZLE ORIFICES: q.ty x hole diameter (mm)		PRIMARY AIR SETTING (mm)	
Oven Model	Bedplate Burner	Dome Burner	Bedplate Burner	Dome Burner	Bedplate Burner	Dome Burner	Bedplate Burner	Dome Burner
FGR110 FG110	1 x 2,50	3 x 2,40	8	15	1 x 1,70	3 x 1,40	15	maximum
FGRi100 FGI110	1 x 2,50	3 x 2,40	8	15	1 x 1,70	3 x1,40	15	maximum
FMR100 FM110	1 x 2,50	-	8	-	1 x 1,70	-	15	-
FWR100 FW110	-	-	-	-	-	-	-	-
FGR130 FG130	1 x 2,50	3 x 2,40	8	15	1 x 1,70	3 x 1,40	15	maximum
FGRi110 FGI130	1 x 2,50	3 x 2,40	8	15	1 x 1,70	3 x 1,40	15	maximum
FMR110 FM130	1 x 2,50	-	8	-	1 x 1,70	-	-	maximum
FWR110 FW130	-	-	-	-	-	-	-	-
FGR150 FG180	1 x 2,50	3 x 2,40	8	15	1 x 1,70	3 x 1,40	15	maximum
FGRi130 FGI150	1 x 2,50	3 x 2,40	8	15	1 x 1,70	3 x 1,40	15	maximum
FMR130 FM150	1 x 2,50	-	8	-	1 x 1,70	-	15	-
FWR130 FW150	-	-	-	-	-	-	-	-
FGR160 FG180	1 x 2,50	6 x 2,40	8	15	1 x 1,70	6 x 1,40	15	maximum
FGRi150 FGI180	1 x 2,50	6 x 2,40	8	15	1 x 1,70	6 x 1,40	15	maximum
FMR150 FM180	1 x 2,50	-	-	-	1 x 1,70	-	15	-
FWR150 FW180	-	-	-	-	-	-	-	-

Morello Forni
MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

TECHNICAL DATA SHEET: TABLE 3

REF	AIR COMBUSTION AND EXAUST - NATURAL GAS
DATE	01-2014

TABLE 3	Oven operating on Natural Gas and/or wood: comburent air and draft required at the exhaust flue collar of the oven				
Oven Model	**GAS Input Rate (Btu/hr)**	**WOOD Input Rate (Btu/hr)**	**Total air amount for combu-stion (cubic meter/hr)**	**exhaust flues indicative amount (cubic meter/hr)**	**Flue collar internal nominal diameter**
FGR110 FG110	136.000	-	2.818	49.317	8 Inch
FGRi100 FGI110	136.000	52.000	3.665	63443	8 Inch
FMR100 FM110	36.000	52.000	1.596	27228	8 Inch
FWR100 FW110	-	52.000	847	14.126	8 Inch
FGR130 FG130	136.000	-	2.818	49.317	10 Inch
FGRi110 FGI130	136.000	52.000	3.665	63443	10 Inch
FMR110 FM130	36.000	52.000	1.596	27228	10 Inch
FWR110 FW130	-	52.000	847	14.126	10 Inch
FGR150 FG180	169.000	-	3.496	61.165	10 Inch
FGRi130 FGI150	169.000	70.000	4.626	77763	10 Inch
FMR130 FM150	36.000	70.000	1.879	29700	10 Inch
FWR130 FW150	-	70,000	1.130	16.598	10 Inch
FGR160 FG180	236.000	-	4.915	86.027	10 Inch
FGRi150 FGI180	236.000	104.000	6.610	105450	10 Inch
FMR150 FM180	36.000	104.000	2444	32525	10 Inch
FWR150 FW180	-	104.000	1695	19.423	10 Inch

Morello Forni
MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

TECHNICAL DATA SHEET	
REF	AIR COMBUSTION AND EXAUST - LP GAS
DATE	01-2014

TABLE 4	Oven operating on LP Gas and/or wood: comburent air and draft required at the exhaust flue collar of the oven				
Oven Model	GAS Input Rate (Btu/ hr)	WOOD Input Rate (Btu/hr)	Total air amount for com-bustion (cubic meter / hr)	exhaust flues indicative amount (cubic meter/hr)	Flue collar internal nominal diameter
FGR110 FG110	85,300	-	1.765	30.900	8 Inch
FGRi100 FGI110	85,300	52,000	2.612	45.026	8 Inch
FMR100 FM110	28.000	52,000	1.430	24.261	8 Inch
FWR100 FW110	-	52,000	847	14.126	8 Inch
FGR130 FG130	85,300	-	1.765	30.900	10 Inch
FGRi110 FGI130	85,300	52,000	2.612	45.026	10 Inch
FMR110 FM130	28.000	52,000	1.430	24.261	10 Inch
FWR110 FW130	-	52,000	847	14.126	10 Inch
FGR150 FG180	104.400	-	2.154	37.698	10 Inch
FGRi130 FGI150	104.400	70,000	3.284	54.296	10 Inch
FMR130 FM150	28.000	70,000	1.715	26.733	10 Inch
FWR130 FW150	-	70,000	1.130	16.598	10 Inch
FGR160 FG180	142.600	-	2.952	51.665	10 Inch
FGRi150 FGI180	142.600	104,000	4.647	71.088	10 Inch
FMR150 FM180	28.000	104,000	2.278	29.558	10 Inch
FWR150 FW180	-	104,000	1.695	19.423	10 Inch

MORELLO FORNI S.A.S
Via B. Parodi 35
16014 Ceranesi (GE) ITALY
Phone: +39.010.7401194
Fax : +39.010.7492194
E-mail : info@morelloforni.com

TECHNICAL DATA SHEET: WIRING DIAGRAM OVEN MODEL FGRI-14

REF	**OVEN RANGE FGR - FGRI UL APPROVED**
DATE	**01-2014**