



PROFESSIONAL OVEN "VALORIANI OT"



VALORIANI
WORLD FAMOUS

ATTENTION

DURING THE USE, SOME SURFACES OF THE OVEN MAY REACH HIGH TEMPERATURES

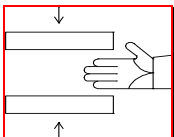
THE USE OF BAD QUALITY WOOD MAY CREATE DANGEROUS SPARKS FOR THE USER AND THE OUTSIDE ENVIRONMENT



BURNING SURFACES



FIRE HAZARD



CRUSHING HAZARD

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GENERAL WARNINGS

Attention:

- **The present handbook is an integral and substantial part of the oven and must be kept available to the operators for any eventual consultation.**
- **Before carrying out any operation, read carefully the information contained in the handbook, with reference to safety , installation, use and maintenance.**
- **The oven must be used only for the use for which it has been conceived (baking of pizza, bread, cakes, roasts and so on...)**
- **The installation of the chimney flue must be conform to the regulations in force in your own country and carried out by authorized personnel and must guarantee the extraction rate required for the model and size of the oven.**
- **All the local regulations, included the ones referred to the National, European and International norms, must be respected during the oven's installation.**
- **In case of repair, it is necessary to use always original spare parts.**
- **The Manufacturer declines any responsibility for direct and indirect damages caused by a wrong installation, bad maintenance, infringement, improper use and non-observance of the norms and indications contained in the present handbook.**

Declaration of conformity CE

REFRATTARI VALORIANI S.R.L.

Declares that the oven , according to its design, construction and execution has proven to be conform to directives 84/500/CEE of 15/10/1984 in relation to materials and devices designed to be in contact with food products.

This declaration loses its validity if the oven is modified without the explicit authorization of the producer.

Comparative schedule –technical data Series “VALORIANI OT”

OT -dimension	100	120	120x160	140	140x160	140x180	180
Weight Kg.	1.100	1.350	1.600	1.600	1.750	1.900	2.200
Flue Ø cm.	20	20	20	20	20	20	20
Flue-minimum height ml.	3	3	3	3	4	4	4
Nominal thermal power (Kcal/h)*	14.000	16.000	19.500	19.500	22.000	26.000	27.500
Nominal thermal power (KW)*	16,3	18,6	22,7	22,7	25,6	30,2	32

*** Nominal thermal power of the oven at the usual operating conditions intended for the baking of pizza :**

1. Operative temperature about 350°C degrees.
2. Use of medium/high hardness wood - wood of reference : BEECH with medium moisture of about 25% or use of equipped gas burner LPG or Methane gas.
3. Measure calculated during the use of the oven already at its operative temperature.

The above mentioned data may change if the conditions of use, operative temperature, type of wood , insulation and oven's size are different than what above described.

Harmonized Norms EN-UNI : **EN13229** Open inserts and fireplaces fed with solid fuel-Requirements and test methods.

UNI 10474 Baking ovens fed with solid fuels.
Classification, features and thermal test.

Data/Date:30 June 2009

NB: Weights and sizes are approximate and are subject to changes without any prior notice by Refrattari Valoriani s.r.l.

1.0 INTRODUCTION

This handbook contains all the information for the installation, use and maintenance of the oven. The original text of this publication , written in Italian language , constitutes a unique reference for the resolution of eventual interpretative disputes bound to the translation in the European languages.

This publication is also to be considered integral part of the oven and must be therefore kept for eventual, future references until the final demolition of the oven.

1.1 PURPOSE OF THE HANDBOOK

The purpose of this manual is the one to allow the designed people to understand the working of the oven , to install and to use it in a safe manner.

For the use and installation the operators shall also follow the specific legislation, related to employment, in force in the country where the oven is installed.

1.2 WARRANTY OF THE PRODUCER

The warranty has a duration of 12 months and its course starts from the date indicated in the sales invoice. The user , in order to benefit of the warranty supplied by the producer , must strictly observe the warnings indicated in this manual.

1.3 WARRANTY TERMS

In case of verified fault of the handwork, the warranty of the producer is limited to the single free delivery of a new and equivalent component.

The producer declines any responsibility, direct and indirect, caused by:

- ✓ Failure to observe the instructions and use different than the one indicated in this manual.
- ✓ Use which does not comply with the specific regulations in force in the country of installation.
- ✓ Removal or tampering of the plate showing the serial number of the oven.
- ✓ Changes carried out on the oven without authorization.
- ✓ Repairs carried out by unauthorized personnel.

Note: the sale of the oven to a second user involves also the delivery of this manual, the failure to deliver this manual automatically invalidates the responsibility of the producer with reference to its correct use. In case of sale of the oven to a second user in a country of a different language, it will be responsibility of the primary user to provide for a faithful translation of this manual in the language of the country where the oven will be operating.



Furnace VALORIANI In 1900



1.0 DESCRIPTION

2.1 CREDITS

First of all we wish to thank you for selecting a professional oven of the "VESUVIO" line and we congratulate you on your choice.

Our company has manufactured refractory items and PREFABRICATED ovens for over 50 years in our premises located in Reggello, close to Florence. All items produced spring from an idea that Mr. SILVIO VALORIANI had right after World Word II for bread baking.

The concept immediately met the favour of the Italian people and proved to be the winning card of the company. Thanks to their easy assembly, installation and use, these ovens are used to cook many traditional dishes, such as lasagne, roasts, baked pasta, besides of course bread and PIZZA

The special design of the vault in refractory *cotto* perfectly matches the cooking surface made up of elements in REFRACTORY COTTO.

This way our ovens offer the same – or even improved, we may add – features of old wood-fired ovens, which were built with refractory bricks laid down following a special design according to ancient building techniques, whose origins are lost in the mists of time.

Massimo Valoriani



2.2 INTENDED USE

The professional ovens VALORIANI have been purposely planned and designed for the baking of PIZZA. Of course you can bake other types of pizza but we mistrust by a different use which is not the baking of pizza, cakes , bread or similar products.

All the food that during baking can release grease, oils or liquid in general must be cooked inside proper containers resistant to high temperatures.

2.3 IDENTIFICATION PLATE

The identification plate with serial number is integral part of the oven and it shall not be removed for any reason.

3.0 INSTALLATION SAFETY WARNINGS

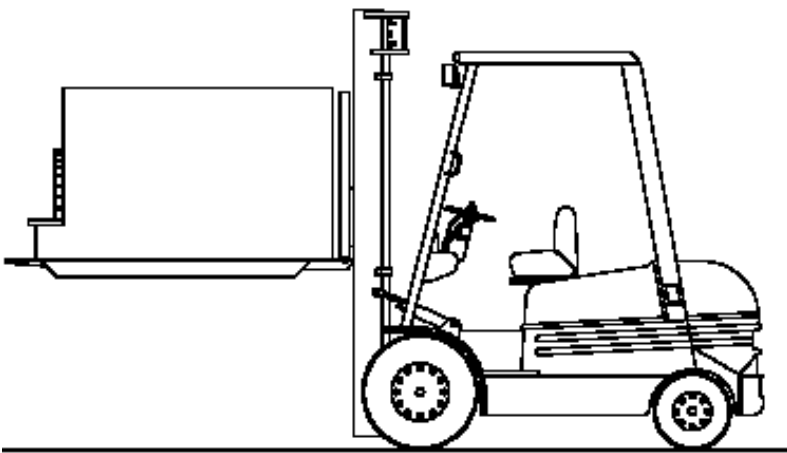
- ✓ The minimum suggested safety distance from inflammable materials is of about 2 meters from the oven's mouth.
- ✓ The oven must be installed upon a floor of proper load capacity.
If the existing building does not meet this requirement, you must take appropriate actions to make the support floor structurally suitable, before the oven's installation.
- ✓ The oven's installation must allow an easy access for its cleaning, the cleaning of the air ducts and of the chimney flue.
- ✓ Keep the children far from the heat sources.
- ✓ The oven must be used only by skilled or correctly instructed people with its operation.



4.0 HANDLING

4.1 HANDLING WITH FORK-LIFT

For the handling of the oven by using a fork-lift , take care of the following steps :



Use a fork lift of a suitable load capacity with lifting forks of adequate length so that all the oven's base is supported during its handling.

USE A FORK LIFT OF SUITABLE LOAD CAPACITY WITH LIFTING FORKS OF ADEQUATE LENGTH SO THAT ALL THE OVEN'S BASE IS SUPPORTED DURING ITS HANDLING.

To avoid damages to the oven and carry out the handling operations in safety , do not use fork lift of inadequate load capacity or with lifting forks of inadequate length which cannot bear all the oven's base.

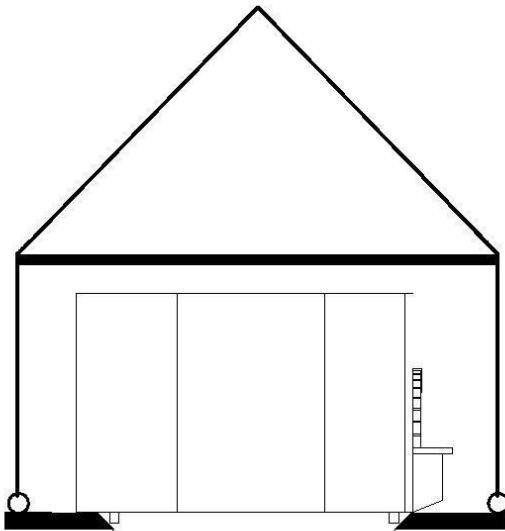




4.2 HANDLING BY LIFTING MEANS

For the handling of the oven by lifting means , please observe the following steps :

Lift the oven so that the lifting cables never tighten against the oven's structure



ALWAYS MAINTAIN THE CABLES SPACE SO THAT THEY DO NOT TIGHTEN AGAINST THE OVEN

USE SOME DEVICES TO PREVENT THE OVEN SLIDING ON THE BARS DURING ITS HANDLING

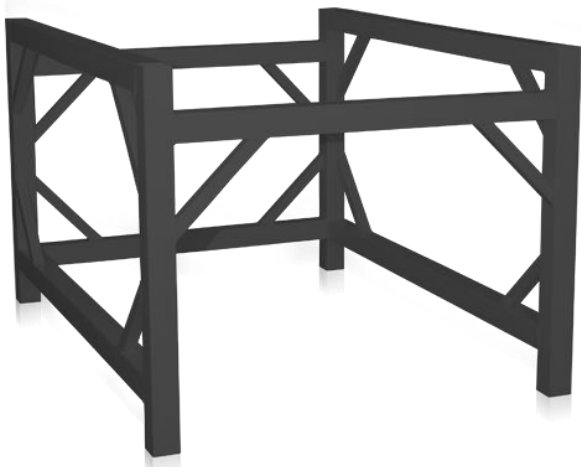
POSITION IN THE LOWER PART OF THE METAL COVERING 2 RIGID BARS OF PROPER LOADING CAPACITY, ON WHICH TO HOOK THE LIFTING CABLES. THE CABLES MUST REMAIN OUTSIDE THE OVEN, IN ORDER NOT TO PRESS IT.

PS : all the described operations must be carried out in the maximum safety and totally respecting all the laws in force in the country of operation.

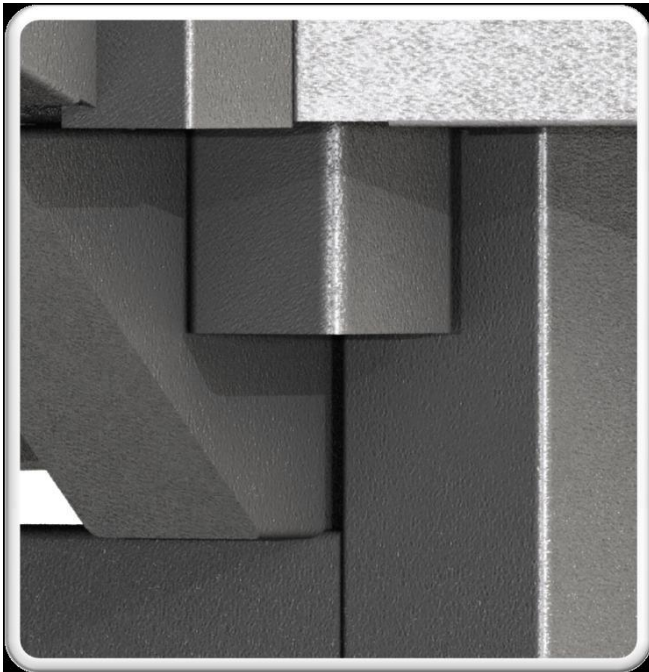


5.0 POSITIONING

Position the oven on its metal base as shown in the picture. The oven must be installed upon a floor of proper load capacity .If the existing building does not meet this requirement , you must take appropriate actions to make the support floor structurally suitable.



BASE



**POSITION AS
SHOWN IN THE IMAGE**



5.1 POSITIONING BY PALLET TRUCK

After positioning the oven on its metal base it is still possible to move it by using a pallet truck positioned under the crossbars of the base as shown in the below image.



POSITION OF THE PALLET TRUCK



5.2 INSTALLATION OF THE GAS BURNER

The New Generation SPITFIRE GOLD burner belongs to the category of equipment designed to the professional hospitality, including communities, the complex of the touristic and catering –hotels sector, big restaurants chain open to the public and private ones with ,as well as to the category of gas ovens, burners, warm air flow generators , boilers with potential not exceeding 35 kW .

The OVEN complete with the BURNER SPITFIRE GOLD is considered an OVEN FOR COOKING OF FOOD WITH GAS-BURNER, and as such must be installed in appropriated places in respect of the regulations in force.

To regulate the installation reference will be made to rules **UNI-CIG 8723 / UNI-CIG 7129 / UNI-CIG 9615**, including subsequent changes or local rules in force.

The UNI-CIG 8723 allows the installation of the full equipment OVEN FOR COOKING OF FOOD WITH GAS BURNER with the exhaust of combustion smokes under hood intake. For this type it is mandatory to strictly abide by the provisions of the legislation.

The Client must make sure that a professionally qualified technician checks the correct natural draught of the chimney flue and shall also perform an analysis of combustion fumes with the oven in operation.

Data :

- Limit temperatures for the gas burner operation 10°C ----+50°C
- Power supply 230 V. 50 Hz. The equipment works with voltage 115V. 50/60 Hz.
- The intake pressure shall be within 18 -25 mbar= 0.26-0.36 psi with methane gas
- The intake pressure shall be within 20 -45 mbar= 0.29-0.72 psi with propane gas LPG
- The supply pipe shall be proportional to the power of the chosen gas burner and to the route that it has to follow from the gas supply site until the gas burner.
- The connection between the supply pipe and the burner shall be carried out with gas pipe not less than $\varnothing 1/2''$.

Any pipe of smaller size will compromise the good operation of the burner.

The maximum potential of the burner GOLD 29 SPITFIRE is 29,0 kW (with gas G25.1-G25-G20-G30)

The maximum potential of the burner GOLD 34 SPITFIRE is 32,0 kW (with gas G25.1) and 34 kW (with gas G25-G20-G30)

The burner can be used with all gas types , methane ,propane, L.P.G .(All gas) by making the necessary adjustments.

If it is planned to close/customize the stand of the oven, it is necessary to provide proper air vent to allow the combustion air flow necessary to the gas burner, besides openings to allow maintenance.

We recommend to refer to the manual of installation use and maintenance equipped with the burner



5.3 CONNECTION TO THE CHIMNEY FLUE

- ② The connection to the flue shall comply with the regulations in force and shall be installed by qualified personnel
- ② The chimney flue must own the necessary requirements of the regulations in force in the country of installation of the oven
- ② The chimney flue must guarantee the extraction rates required by the dimension of the oven, see table A
- ② The equivalent air volume evacuated by the flue, must be re-inserted inside the room through outside openings or equivalent systems.

TABLE A

Required smoke exhaust flow rate	
Oven's dimension	Required flow rate Nm ³ /h
OT Ø 100	220/240
OT Ø 120	250/270
OT Ø 120x160	270/290
OT Ø 140	270/290
OT Ø 140x160	280/300
OT Ø 140x180	290/310
OT Ø 180	320/340

IMPORTANT

THE CHIMNEY FLUE MUST BE INSTALLED BY QUALIFIED PERSONNEL IN CONFORMITY WITH THE REGULATIONS IN FORCE

ALWAYS PROVIDE FOR THE AIR REINSTATEMENT NECESSARY TO THE COMBUSTION AND TO THE SMOKES EVACUATION , AS PROVIDED BY THE REGULATIONS IN FORCE ON THIS MATTER, THROUGH OPENINGS TO THE OUTSIDE (VENTILATION GRILLS).

WHEN THE OVEN IS INSTALLED IN ROOMS WHERE THERE IS THE PRESENCE OF FORCED SUCTION SYSTEMS (SUCKED HOODS OF THE KITCHENS) YOU SHOULD TAKE APPROPRIATE MEASURES TO AVOID CREATING DEPRESSION INSIDE THE ROOM WHICH WOULD COMPROMISE THE CORRECT OPERATION OF THE OVEN



6.0 USE AND SAFETY INSTRUCTIONS

6.1 WARNINGS

- ✓ All the local regulations, included the ones referred to the National Norms, European Norms and International Norms must be observed during the installation.
- ✓ Do not use the oven as incinerator or in any other way different than the one for which it has been conceived.
- ✓ Do not use fuel different than the ones suggested
- ✓ Do not use liquid fuels.
- ✓ The oven and in particular way some outside surfaces , when it's operating it reaches high temperatures to the touch , handle with care to avoid burns.
- ✓ Do not carry out any not authorized changes.
- ✓ Use only original spare parts recommended by the producer.

7.0 OVEN'S FIRING

The oven when it's new, contains residual moisture, which during the drying must not turn into steam inside the handwork. THEREFORE IT IS FUNDAMENTAL to start very carefully with the first curing in order to avoid the above mentioned effect, which could create cracks to the handwork. **For THE FIRST FIRING**, which has to be carried out gradually and constantly for 1 week days, you **MUST** proceed as follows:

7.1 FIRST FIRING VALORIANI OT WOOD

- 1) Light a small fire in the central part of the oven.
- 2) Keep an even inside temperature of about 100/150 °C constantly for the first two days
- 3) Raise of 50 C from the third day, for each day (and keep it constant for all the day until the total dehumidification of the handwork)

With a normal oven's utilisation the fire should be positioned sideways; as the part most exposed to the fire will suffer consequently the most thermal expansions and the most wear during the years.

We recommend to alternate the fire from the right side to the left side and vice-versa; in this way you will obtain a constant balance for the structure and surely a better yield in time.

We suggest to use thin, light and dry wood, to make easier the fire's lighting and a better initial heating.



Successively, in order to have an optimum yield with a low wood consumption, we suggest to use heavier and thicker wood (Oak - Beech – Oliva in trunks long cm 30-40)

We discourage the use of resinous wood (Pine - Spruce) because it transmits a particular and not suitable odour; we don't suggest also the use of Poplar - Birch because of its high residual of carbonic particles.

Do not use any other kind of fuel, such as coal, charcoal slak, petrols, an so on.

The wood put into the oven must NEVER be beaten against the crown because at high temperatures some damages to the structure may occur.

7.2 FIRST FIRING VALORIANI OT GAS

- ☐ Switch the burner on and set the minimum flame mode
- ☐ Keep CONSTANT the previous settings for 6-8 hours consecutive for the first two days
- ☐ The third day set the burner on automatic mode setting the set point at 200°C keeping it on for 6-8 hours consecutive.
- ☐ The fourth day keep the automatic mode of the burner setting the set point at 250 °C keeping it on for 6-8 hours consecutive.
- ☐ From the fifth day you can set the set point of the gas burner at the desired operating temperature and carry out the first baking tests.



IMPORTANT

LITTLE AND EVENTUAL CRACKS INSIDE THE CROWN'S ELEMENTS ARE PERFECTLY NORMAL AND ARE DUE TO THE THERMAL EXPANSION OF THESE ONES TO THE HIGH TEMPERATURES. SUCH CRACKS DO NOT COMPROMISE IN ANY WAY THE WORKING OF THE OVEN, ON THE CONTRARY, THEY ARE SYMPTOMS OF A VERY GOOD DEHUMIDIFICATION OF THE HANDWORK.

IMPORTANT

THE OVEN'S CROWN MUST NOT BE FIXED BUT THERE MUST BE BETWEEN THEM A THERMAL EXPANSION JOINT, IN ORDER TO LEAVE A RIGHT DEGREE OF MOBILITY, TO COMPENSATE THE THERMAL EXPANSIONS. THIS JOINT MAY INCREASE OR DECREASE DURING THE OVEN'S LIFE, BECAUSE OF THE THERMAL EXPANSION , THESE MOVEMENTS ARE PERFECTLY NORMAL AND DO NOT COMPROMISE AT ALL THE PERFORMANCES OR STABILITY OF THE OVEN.

IMPORTANT

IN CASE OF AN EXTENDED INACTIVITY OF THE OVEN, PROCEED WITH A SLOW RELIGHTING FOR ABOUT 24/36 HOURS

IMPORTANT

WE RECOMMEND TO FOLLOW CAREFULLY WHAT ABOVE INDICATED, SINCE THE ALMOST TOTALITY OF THE CRACKS ON THE CROWN'S ELEMENTS OCCUR DUE TO A TOO FAST DRYING.

IMPORTANT

EVEN IF THE OVEN IS DELIVERED IN WHITE COLOUR WE SUGGEST NOT TO CARRY OUT ANY OUTSIDE COVERING, **DURING THE FIRST MONTH OF WORKING OF THE OVEN** (PAINTS, TILES AND SO ON...) SINCE, BECAUSE OF ITS FEATURES OF TRANSPARATION WHICH MAKE IT UNIQUE IN ITS WAY, ANY COVERING ON THE CROWN'S SURFACE WOULD NOT ALLOW THE NORMAL DISCHARGE OF THE MOISTURE , WITH CONSEQUENT FORMATION OF BUBBLES. THEREFORE DURING THE FIRST 30 DAYS OF WORKING THE VENATIONS THAT WILL APPEAR ON THE UPPER INSULATION ARE PERFECTLY NORMAL AND DO NOT DAMAGE AT ALL THE GOOD WORKING OF THE OVEN.

IMPORTANT

DO NOT KEEP IN THE HEAT SPREADING AREAS OR IN FIRE RISK AREAS ANY FLAMMABLE MATERIAL. PLEASE RESPECT ALL EXISTING NORMS ABOUT THE FUEL STOCKING.



7.3 CONTROL BOX COMMANDS DESCRIPTION

Figure A: Control box



Figure B: burner's controls overview

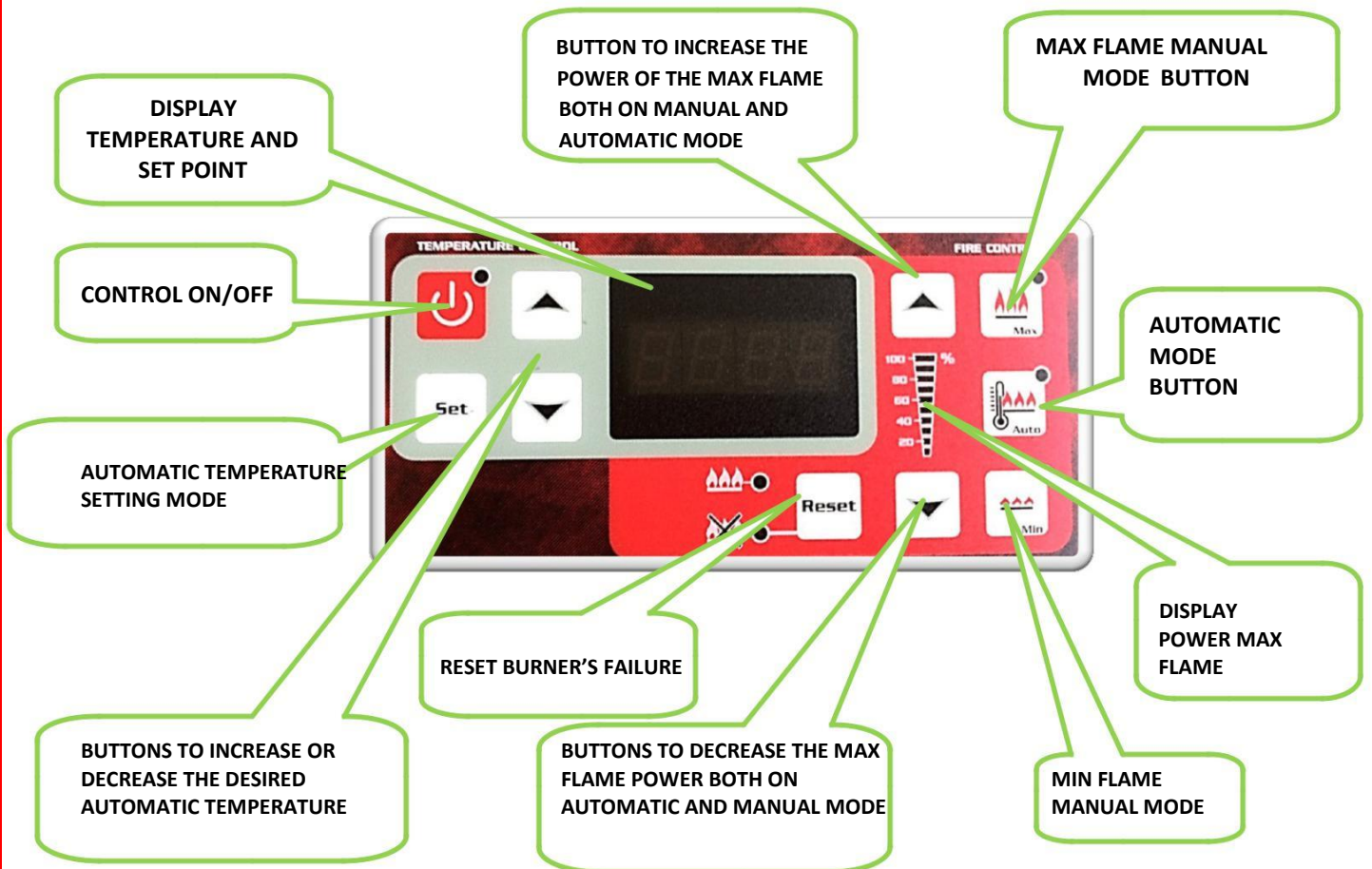




Image of the flame on maximum with power 70% and temperature 420°C



Image of the flame on minimum and temperature 420°C



8.0 BAKING TIMES

The baking times for pizza are very variable; normally from 1 to 3 minutes and depends on the kind of dough, the inside temperature used by every single pizza maker and many other features. One of the most important strong point of the VALORIANI OT is the UNIFORMITY of baking capacity with every working conditions and temperature of use.

The perfect balance between the dome and the floor, made of a special refractory “COTTO “, allows an optimal baking also at high temperature (over 400 degrees) avoiding that the pizza sticks or burns in its lower part.

9.0 CLEANING AND MAINTENANCE

We suggest to use the proper brass brushes for the inside cleaning of the oven, that you can easily find on the marked or can be provided by Refrattari Valoriani s.r.l.

WARNINGS

- ✓ Do not beat the shovel on the baking surface in order to avoid damages.
- ✓ Do not use wet rags or other materials containing moisture.
- ✓ Never throw water inside the structure, it is important to avoid strong thermal shocks that could damage the handwork.
- ✓ Do not use salt inside the oven.

9.1 MAINTENANCE

Every extraordinary maintenance operation must be carried out by qualified personnel.



10.0 TROUBLESHOOTING AND FAULTS

The most common failures are :

PROBLEM	CAUSE
The oven does not heat properly	-Insufficient flow rate of the gas pipe -Excessive extraction of the chimney flue -Lack of combustion air -Lack of air reinstatement inside the room
The oven emits smokes or bad smell	-Insufficient extraction of the chimney flue -Lack of air reinstatement into the room -Insufficient or inadequate chimney flue -Lack of maintenance to the gas burner

In case of other failures please contact the retailer.

11.0 SUGGESTIONS

SMOKE EQUIPMENTS TAKE FIRE IF "ABUSED" AND DUE TO:

- Overheating of the smoke device (for misuse of the oven, use of inappropriate fuels, burning of the soot not removed, lack of insulation or wrong insulation).
- Transmission of heat to wood surfaces (roof structure, wood paneling).
- Excessive ventilation that promotes the spread of fire (ventilated roofs, insulated under the roof tiles, trusses and plank).

NB: New Technologies of smoke systems have been designed to be used inside buildings built according to bio-architecture (wooden structures close to steel chimneys).



HOW TO AVOID THE FIRE INSIDE THE CHIMNEY FLUE ?

With common sense and paying attention to the following factors

- ✓ Use of the fuel indicated by the oven's producer.
- ✓ Periodical maintenance of the chimney flue by qualified personnel.
- ✓ Building of the system by qualified and specialized companies.
- ✓ Use of suitable and certified building materials for the smoke system.
- ✓ Laying carried out by specialized companies.
- ✓ Observation of all the technical norms and of all the norms in force in the country of operation.



THE PROFESSIONAL OVENS VALORIANI OT HAVE BEEN DESIGNED FOR THE BAKING OF THE PIZZA, BREAD, CAKES ETC. THEREFORE REFRATTARI VALORIANI S.R.L. DECLINES ANY RESPONSIBILITY FOR UTILIZATIONS AND MODES OF APPLICATION DIFFERENT THAN THE ABOVE DESCRIBED ONES.

IT IS NOTED THAT BUILDING WORKS AND CONSTRUCTION WORKS IN GENERAL, SHOULD BE EVENTUALLY CARRIED OUT BY THE CUSTOMER AND AT HIS CHARGES, UNDER HIS FULL AND EXCLUSIVE RESPONSIBILITY, BY AN ADMINISTRATIVE, CIVIL AND PENAL ASPECT. THE CUSTOMER UNDERTAKES AND GUARANTEES, STARTING FROM NOW, TO DETECT REFRATTARI VALORIANI S.R.L FREE FROM ANY AND ALL NEGATIVE CONSEQUENCES SHOULD ARISE CAUSED BY EVENTUAL ADMINISTRATIVE, URBAN PLANNING AND PENAL BREACHES, BY WARRANTING TO FACE ALL THE EVENTUAL EXPENSES, PENALTIES INCURRED AS A RESULT TO THE BREACHES COMMITTED BY THE CUSTOMER.

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