



USE AND MAINTENANCE MANUAL

TUNNEL



INTRODUCTION

The present manual provides safety directions and instructions for the oven use and maintenance. This manual must be consigned to the people working on the oven or doing the maintenance.

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CHAP.1 - PRESENTATION

The present manual forms an integral part of the oven and must be carefully conserved for the entire duration of the oven itself up until its final demolition.

The TUNNEL ovens are part of the belt ovens series, specifically designed for the automatic baking of pizza, bread, biscuits and related products.

Two versions are available: the "Stone" version (with belt in refractory stone) and the "Classic" one (with stainless steel mesh belt). The "Stone" family is formed by three models different in capacity and power: TSA, TSB and TSC. The same is for the "Classic" family, with TCA, TCB and TCC models.

The particular feature of this oven is that excellent baking results are achieved without having to check the baking itself, and thanks to its simplicity of use and very limited consumption rates making it ideal for use by non-specialized personnel also.

The required temperature is achieved gradually and automatically, thereby reducing the set value variations to zero thanks to the special insulating system.

The bakery is either directly on the baking plate or using baking trays or moulds.

These Tunnel ovens may be included in any automatic production line.

The manufacturing company will not accept liability for any damage to persons and/or things as the result of the following:

- Improper use of the system
- Any non-authorized modifications or technical interventions
- The use of non-original spare parts
- The either partial or total failure to follow the instructions

We wish to thank you for having chosen this oven.

1.1 – Checks on consignment

Unless other specific agreement are made, the products are carefully packaged in sturdy wooden crates with nylon bubble packing to protect it from knocks and humidity during transportation. However we would advise you to check the packaging on taking delivery, for evidence of any signs of damage. Should they be found they must be noted on the delivery receipt to be signed by the driver.

On unpacking the appliance, check for any signs of damage. In the event of any damage do not attempt to use the appliance and contact professionally trained personnel.

1.2 – Packaging disposal

All the parts that constitute the packaging must be disposed in a specific collection site. The disposal of the aforementioned material in non appropriate sites is prohibited.

1.3 – Shifting

To shift the system or to temporarily place it out of order the following needs to be done:

- Disconnect the power supply
- Clean all parts
- Lubricate and protect

To start up again, specialized personnel need to check that it is in good working order.

1.4 – Demolition

To demolish the system it is always necessary to contact an authorized demolition company to undertake the necessary operations-

1.5 – Safety norms and residual hazards

The oven has been built in such a way to ensure the functional convenience and safety for those using it, however certain residual hazards remain, and to eliminate them it is necessary to:

- Keep non-authorized personnel away from the operating vicinity
- Not to use the oven for any other purposes than those for which it is intended
- Always wear gloves and pay attention to hot parts
- Not to carry out any modifications or technical interventions on the oven without producer's authorization
- Do not remove safety devices
- Immediately disconnect the power supply in the event of risk situations

CHAP.2 – TECHNICAL SPECIFICATIONS

TUNNEL ELETTRICO	Dimensioni interne (cm) Internal Dimensions (cm)			Dimensioni esterne (cm) External Dimensions (cm)			Nastro Conveyor	Peso Weight	Alimentazione Supply	Potenza Power		Assorbimento Absorption	Temperatura Temperature
	A/H	L/W	P/D	A/H	L/W	P/D	L/W	Kg	V/Ph/Hz	Max. kW	Med. kW/h	Ampere	°C
TSA	11	53	80	52	108	182	45	200	400/3/50-60	12,5	6	19	0/450
TSB	11	67	114	52	122	216	59	308	400/3/50-60	19,5	10	30	0/450
TSC	11	87	150	52	142	252	79	420	400/3/50-60	34	17	52	0/450
TCA	11	53	80	41	108	177	45	114	400/3/50-60	12,5	6	19	0/450
TCB	11	67	114	41	122	211	63	163	400/3/50-60	19,5	10	30	0/450
TCC	11	87	150	41	142	247	83	233	400/3/50-60	34	17	52	0/450

TS: Nastro trasportatore con listelli in pietra refrattaria – Conveyor belt with refractory stone fillets
TC: Nastro trasportatore con rete in acciaio inox – Conveyor belt with copper steel mesh

CHAP.3 - INSTALLATION

IMPORTANT: The present installation instructions are intended for the exclusive use of qualified personnel

Installation by non-qualified personnel may cause damage to the oven, persons, animal or things.

Furthermore, should it be necessary to make any modifications or additions to the wiring systems of the building in which the oven is to be installed, those undertaking the work must be able to certify that it is carried out to the “state of the art”.

3.1 – Choice of installation site

The efficient, safe and long-lasting function of the oven also depends on the choice of installation site, so that is important to carefully decide on where it is to be installed before actual delivery. The appliance is to be installed in a dry place which is easily accessible both for operational purposes and for cleaning and maintenance. The area surrounding the oven must be kept clear, and it is important to ensure that the cooling vents are not obstructed.

The appliance must also be installed at a distance of at least 20 cm from the walls of the building or from other appliances

3.2 – Electrical connection

Our ovens are supplied with an electrical connection cable complete with earthing connection, in accordance with current safety regulations, ***it is necessary to connect the earthing conductor (yellow-green) to an equi-potential system the efficiency of which must be checked in accordance with the current norms.***

Before making any connections check that the features of the electrical mains to which the device must be connected, complies with the necessary power supply requirements.

The power cable must end with a plug to be connected to an electricity supply board complete with corresponding socket and differential magneto-thermal switch.

The plug-socket pair must be such as to ensure that the earthing conductor is connected first and disconnected last and must be of adequate dimensions for the nominal current. Plugs and sockets for industrial purposes of **CEE17** type are suited for this purpose, or to any event those which comply with European norms **EN 60309**.

The thermal protection device must be calibrated at the total nominal voltage, the magnetic protection device must be calibrated to the maximum instant voltage, while the differential device must be calibrated to a voltage of **30 mA**.

The producer will not accept liability for any damage caused as the result of the non-compliance with the above-mentioned regulations.

CHAP.4 - OVEN CONTROLS



4.1 - Switch-on

ATTENTION: the first oven start-up must be preceded by the removal of the protective film from the stainless steel panels.

After connecting the plug to the wall socket, turn the MAIN SWITCH to the "ON" position.

Press the START BUTTON and check that it lights up.

Once this is done, press the button to switch on the ELECTRONIC BOARD, holding it down for a few seconds.

At this point turn the SWITCH to the "ON" position to start the conveyor belt.

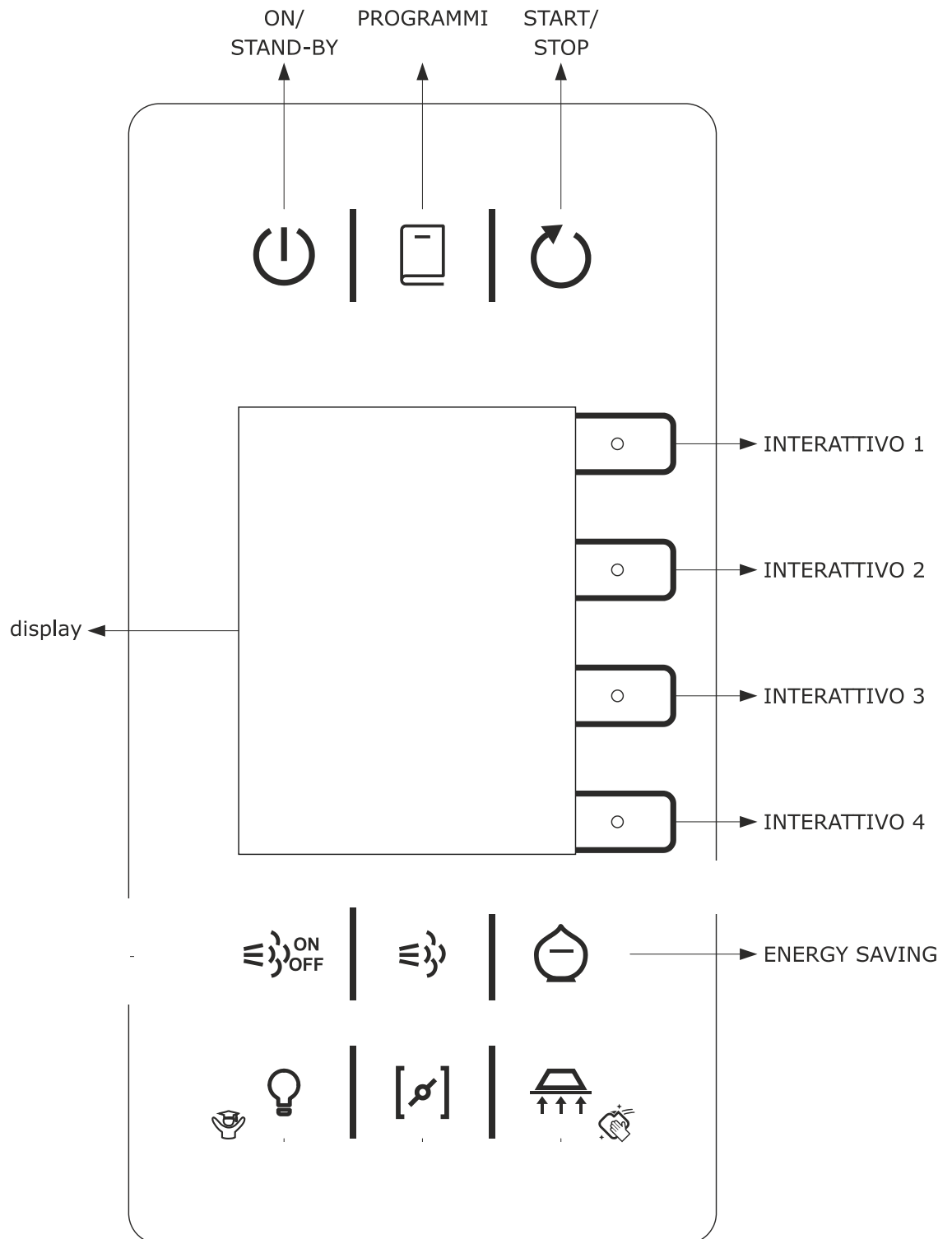
To adjust the belt speed, use the POTENTIOMETER to the right to increase the number of revolutions or to the left to slow down.

The belt speed must be adjusted according to the decimal scale on the knob in relation to the cooking needs.

In the event of any problems or faults, press the EMERGENCY BUTTON which immediately cuts off power to the machine. Once any issues have been resolved, the oven can be restarted by unlocking the emergency button and pressing the start button.

4.2 - Short downtime periods

When you need to keep the oven at temperature while waiting to bake within a limited period of time, it is recommended to lower the power regulator so that the oven always maintains the set temperature. This will prevent unnecessary and expensive electricity consumption.

CHAP.5 - ELECTRONIC CONTROL BOARD

After correctly switching on the oven (paragraph 4.1), the various parameters on the electronic control board can be set. All the set-ups for adjusting the latter in order to set the oven according to your needs will be listed below.

5.1 - Pushbutton panel

REFERENCE	DESCRIPTION
ON/STAND-BY	<i>SWITCH ON/OFF KEY</i>
PROGRAMS	<i>PROGRAMMING AND RECIPE LIST KEY</i>
START/STOP	<i>FUNCTION START KEY</i>
INTERACTIVE 1	<i>TOP AND INCREASE KEY</i>
INTERACTIVE 2	<i>DECREASE KEY</i>
INTERACTIVE 3	<i>BOTTOM KEY</i>
INTERACTIVE 4	<i>TIMER KEY</i>
ENERGY SAVING	<i>REDUCED POWER KEY</i>

5.2 - Instrument Switch-On/Switch-Off

Press the ON/STAND-BY button to switch the instrument on/off

Once switched on, the DISPLAY shows: top probe temperature detected, bottom probe temperature detected and the cooking timer duration.

5.3 - Setting the top temperature

- Press the INTERACTIVE button 1
- Set the temperature by using INTERACTIVE 1 or 2, which act as an increase and decrease key.
- Confirm by pressing INTERACTIVE 3 or wait for storage which takes place in 10 seconds.

5.4 - Setting the bottom temperature

- Press the INTERACTIVE button 2
- Set the temperature by using INTERACTIVE 1 or 2, which act as an increase and decrease key.
- Confirm by pressing INTERACTIVE 3 or wait for storage which takes place in 10 seconds.

5.5 - Setting the cooking timer

- Press the INTERACTIVE button 4
- Set the time via INTERACTIVE 1 or 2, which act as an increase and decrease key, and with INTERACTIVE 3 which is used to select between minutes and seconds.
- Confirm by pressing INTERACTIVE 4.
- Press the START/STOP button to start the timer, press the START/STOP button again for 2 seconds to stop the operation.

5.6 - Program storage

- Before accessing the storage of a program, it is required to set the top and bottom temperature and the timer as described in the previous points.
- Press the PROGRAMS button for 3 seconds.
- Select a program and press the INTERACTIVE 3 key. The recipe is now stored and active, as indicated on the display in green (for example “Recipe 1”).
To delete a program, select it and press the INTERACTIVE 4 key for 3 seconds, confirming with INTERACTIVE 3.

5.7 - Weekly scheduled switch-on

- The weekly scheduled switch-on requires the storage of a program and its activation.
- Set the instrument to the stand-by status by using the ON/STAND-BY key
- In stand-by, the calendar icon will appear next to the INTERACTIVE 3 key. At this point press the INTERACTIVE 3 key.
- Press INTERACTIVE 3 again to begin setting a scheduled switch-on.
- The option to set a day, time and recipe will appear on the DISPLAY screen.
- Once the required parameters have been set, press the INTERACTIVE 4 key, returning to the stand-by status.
- Press the ON/STAND-BY key to switch on the instrument on the main section.
- Press ON/STAND-BY again to display the option to schedule the switch-on.
- Press START/STOP to confirm the scheduled switch-on.

5.8 - Board errors

CODE	DESCRIPTION	SOLUTION
Power Failure (DISPLAY)	<ul style="list-style-type: none"> ▪ No electrical power supply. 	<ul style="list-style-type: none"> ▪ Restore the power supply and press one of the keys on the display
Chamber Probe (DISPLAY)	<ul style="list-style-type: none"> ▪ Top and bottom probes incorrectly connected ▪ Faulty top and bottom probes ▪ Instrument-probe connection error. 	<ul style="list-style-type: none"> ▪ check probe connection. ▪ check probe integrity ▪ check instrument-probe connection.

CHAP.6 - CLEANING

Clean must always be undertaken with the oven off and at room temperature.

6.1 – Cleaning of any removable parts

When cleaning the removable parts, after they have been washed using water, sponges and normal detergents, it is advisable to also rinse well with a jet of water, to prevent any risk of accumulation of dirt or detergent residue which risk contaminating the products. Furthermore, we advise against using abrasive objects as they could gradually remove the shine from these parts.

6.2 – Baking chamber cleaning

When cleaning the baking chamber use a soft, damp sponge using non-abrasive detergent if necessary. Should there be a substantial build up of grease or residues, remove gently using a spatula, avoiding to damage the resistances and the instruments.

WARNING: never use jets of water or liquids directly on the surfaces as they risk penetrating the electrical components or the resistance area, with a risk of damaging the oven or even risking mortal electrocution.

6.3 – External part cleaning

For the cleaning of the external part in stainless steel and of the panels use a damp sponge and non-abrasive detergents if necessary.

WARNING: never use jets of water or liquids directly on the surfaces as they risk penetrating the electrical components or the resistance area, with a risk of damaging the oven or even risking mortal electrocution.

6.4 - Cleaning of the refractory material shutters (“Stone” version)

For a correct cleaning of the refractory shutters use a very fine stainless steel filament brush, which should be brushed against the shutter from right to left and vice versa applying light pressure.

The dirt removed by this brush must be removed using a vacuum cleaner.

CHAP.7 - MAINTENANCE

WARNING: The present maintenance instructions are solely for the use of personnel qualified in installation and maintenance of electrical devices.

Any maintenance carried out by non-qualified personnel may cause damage to the oven, to persons, animal or things.

In order to undertake repairs and checks, it is, in most cases necessary to remove the fixed guard elements: this will render the live conductors accessible, involving some risks.

Before removing any fixed guard element it is therefore advisable to ensure that the electricity supply plug of the oven unit is detached from the power panel.

N.B. Every 40 hours of operation is necessary to grease the conveyor chain (Tunnel Stone only) with the appropriate lubricant supplied.

THE MANUFACTURING COMPANY WILL NOT ACCEPT LIABILITY FOR ANY DAMAGE TO PERSONS AND/OR THING AS THE RESULT OF THE FAILURE TO FOLLOW THE INSTRUCTIONS OR OF TECHNICAL INTERVENTIONS CARRIED OUT BY NON-AUTHORIZED PERSONNEL.

7.1 – Compulsory maintenance schedule

DAILY MAINTENANCE

Stone Cleaning

- Clean the conveyor/stones using a stiff-bristle natural brush to remove loose debris and food particles, with a movement in the same direction of the stones from left to right. This operation must be done at the end of the work day with the oven still on as it is much easier to clean the stones when they are still hot. Repeat throughout the day.

Oven cabinet cleaning

- Turn off the oven. Allow the oven to completely cool down. Turn off the electrical supply to the oven or unplug the power cord from the receptacle. Clean the exterior of the oven using a mild detergent solution and a soft cloth. Always clean in the direction of the steel grain to avoid visible scratches.

Crumb drawers cleaning

- Remove, empty and clean the two crumb drawers

PERIODIC MAINTENANCE

Fan filter cleaning

- At least once a month (more if necessary), remove and clean the fan cover filters using an air compressor. You can also use a soft brush, or a vacuum cleaner or wash the filters under water. Dry completely before reinstallation.

Chain lubrication

- Every 40 hours of operation of the oven, grease the conveyor belt chain. This operation must be carried out when the oven is switched on (but still cold), on the loading side of the belt, using a specific ITALFORNI lubricant.

WARNING

The oven can be used even if some stones are cracked, providing that no stone parts or rivets are missing. If stone parts or rivets are missing, replace immediately before using the oven. Using the oven with missing stone parts or rivets prevents proper functionality.

**FAILURE TO COMPLY WITH ALL OF THE PROCEDURES DETAILED ABOVE
WILL VOID ANY AND ALL WARRANTY CLAIMS.**

On the oven side it is applied a sticker with the indication of the Compulsory Maintenance Schedule to be performed by the shop attendants.

Stone Conveyor Oven – Compulsory Ordinary Maintenance Schedule

CAUTION

- Never use a water hose, pressure washer, or steam cleaner on ovens.
- Never use metal scrapers, razor blades, steel wool, scouring pads, or any other ferrous abrasives when cleaning ovens.

Daily Maintenance

Stone Cleaning

- Clean the conveyor/stones using a stiff-bristle natural brush to remove loose debris and food particles, with a movement in the same direction of the stones from left to right. This operation must be repeated throughout the day and at the end of the working day with the oven still on as it is much easier to clean the stones when they are still hot.

Oven cabinet cleaning

- Turn off the oven. Allow the oven to completely cool down. Turn off the electrical supply to the oven or unplug the power cord from the receptacle. Clean the exterior of the oven using a mild detergent solution and a soft cloth. Always clean in the direction of the steel grain to avoid visible scratches.

Crumbs collection drawer cleaning

- Remove, empty and clean the two crumb drawers. This operation must be carried out while the oven is cool.

Periodic Maintenance

Fan filter cleaning

- At least once a month (more if necessary), remove and clean the fan cover filters using an air compressor. You can also use a soft brush, or a vacuum cleaner or wash the filters under running water. Dry completely before reinstallation.

Chain lubrication

- Every 40 hours of operation of the oven, lubricate the conveyor belt chain using approved ITALFORNI lubricant. This operation must be carried out when the oven has been just switched on and it is still cold, on the loading side of the belt.

WARNING

The oven can be used even if some stones are cracked, providing that no stone parts or rivets are missing. If stone parts or rivets are missing, replace immediately before using the oven. Using the oven with missing stone parts or rivets prevents proper functionality.

FAILURE TO COMPLY WITH ALL OF THE PROCEDURES DETAILED ABOVE WILL VOID ANY AND ALL WARRANTY CLAIMS.

ITALFORNI PESARO

