

TUBIX STEAM PIPES OVEN

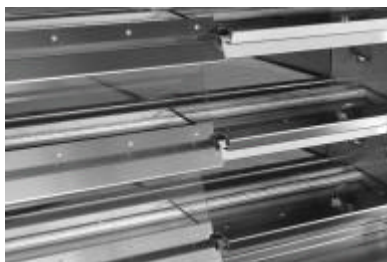


The steam tube oven mod. TUBIX is a static deck oven. The chief characteristic of the oven is its heating system, with heat supplied by a dense network of closed circuit tubes in which steam circulates. The baking chambers are wrapped by annular tubes, while the roof and the ceiling of each baking chamber are heated by transversal tubes.

The baking floors into the baking chamber are made up of cement plates of a special mix. The walls of the baking chamber are panelled with stainless steel sheets and are supplied with lighting and independent high-yielding steam devices, to allow several consecutive baking, and with steam exhaustion valve. The stainless steel input mouths are arranged for the use of the proper conveyor belts, and are equipped with balanced doors of tempered crystal glass and steel. These doors can be easily removed from their seats, in order to allow an easy cleaning of the doors themselves and of the baking chamber.

This type of oven provides and guarantees low consumption, quick temperature recovery and perfect uniform baking. All made possible by perfectly sized smoke ducts made of refractory bricks, automatic device for the draft adjustment and the lateral padded concretes.

The control panel is electromechanical or electronic in 24 volt.



Structure: The front, the loading end and the outside covering panels are in stainless steel (inox). The loading doors are made in thick tempered glass, perfectly balanced by stainless steel-lined counter-weights, for a fast opening and easily removable for their cleaning.

Baking plates: made of high performance materials suitable to get in touch with foods.



Tube: the tube bundles allow the heat released by the combustion products to be conveyed to the product to bake placed into the baking chambers. The pipes are cold-drawn, they are made of high endurance steel and tested according to the rules UNI 663/68. The tubes have a diameter of 28 mm and a thickness of 4 mm, they are certified and tested individually.



Steamers: Each baking chamber has its own steamer, which are positioned lengthwise along the tubes in contact with the base of the oven. Since this is the hottest place in the oven, the steamers are always ready for producing great quantity of steam. The steam device is made up of a steel box 1 cm. thick, filled with section bars 30x40. The water sprayed inside the bars produces steam by spreading over the inner side of the burning pipe.

Heating: The oven may be fired with either a gas or gas oil burner (Diesel, Gas Methane -CH₄, LPG -Liquey Petrol Gas-). On request the oven may be equipped with a stove alongside the oven for solid fuels (wood, coal, etc).

The oven "TUBIX" works with the proper burner by using the following types of fuels:

TYPE OF FUEL	TYPE OF BURNER	FEED PRESSURE	NET HEAT VALUE
GAS OIL	S	See burner handbook	11.5 kW/kg
FUEL OIL	S	See burner handbook	11 kW/kg
NATURAL GAS	S - A	See burner handbook	10 kW/m ³ _n
P.L.G.	S - A	See burner handbook	13 kW/m ³ _n
TOWN GAS	--	--	3,7 - 5,2 kW/Nm ³
LEGNA ESSICCATA	--	--	4,6 - 4,9 kW/kg
LIGNITE - CARBONE SULCIS	--	--	6,0 - 7,0 kW/kg
ANTRACITE	--	--	8,7 - 9,3 kW/kg

S = BLOWN BURNER

A = ATMOSPHERIC

Protection and safety devices:

Safety thermostat. this device is installed in order to avoid the temperature inside the oven to go over the calibration value (300°C). If the oven reaches the calibration value, the thermostat disconnects automatically the burner.

Emergency push button. It is a mushroom-head push button, its colour is red on yellow background, it is placed on the control panel. When pushed, it stops immediately all the functions of the oven and of the burner. This device is quickly recognizable and can be easily reached by the operator from his working position.

Steam exhaust fan. It is an exhaust fan installed over the exhaustion hood and started manually by the operator by means of the proper selector placed on the control board before every unloading of the product.

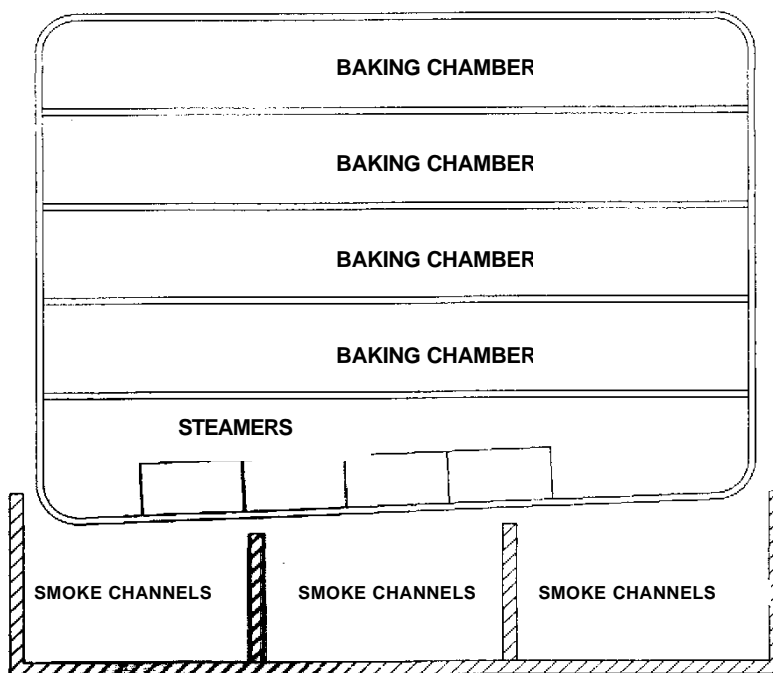
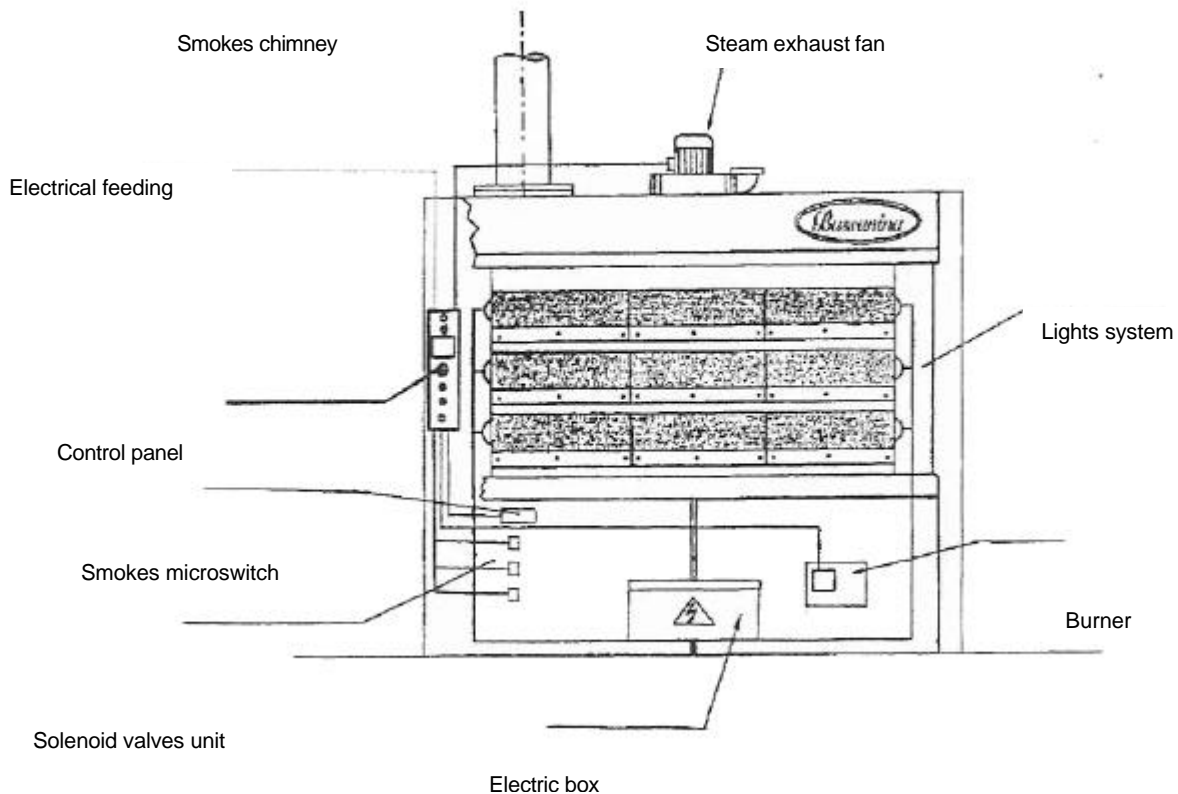
The Declaration of Conformity, in according to the European Community directives applicable to the oven, is delivered to the buyer along with the oven and the Service Handbook.

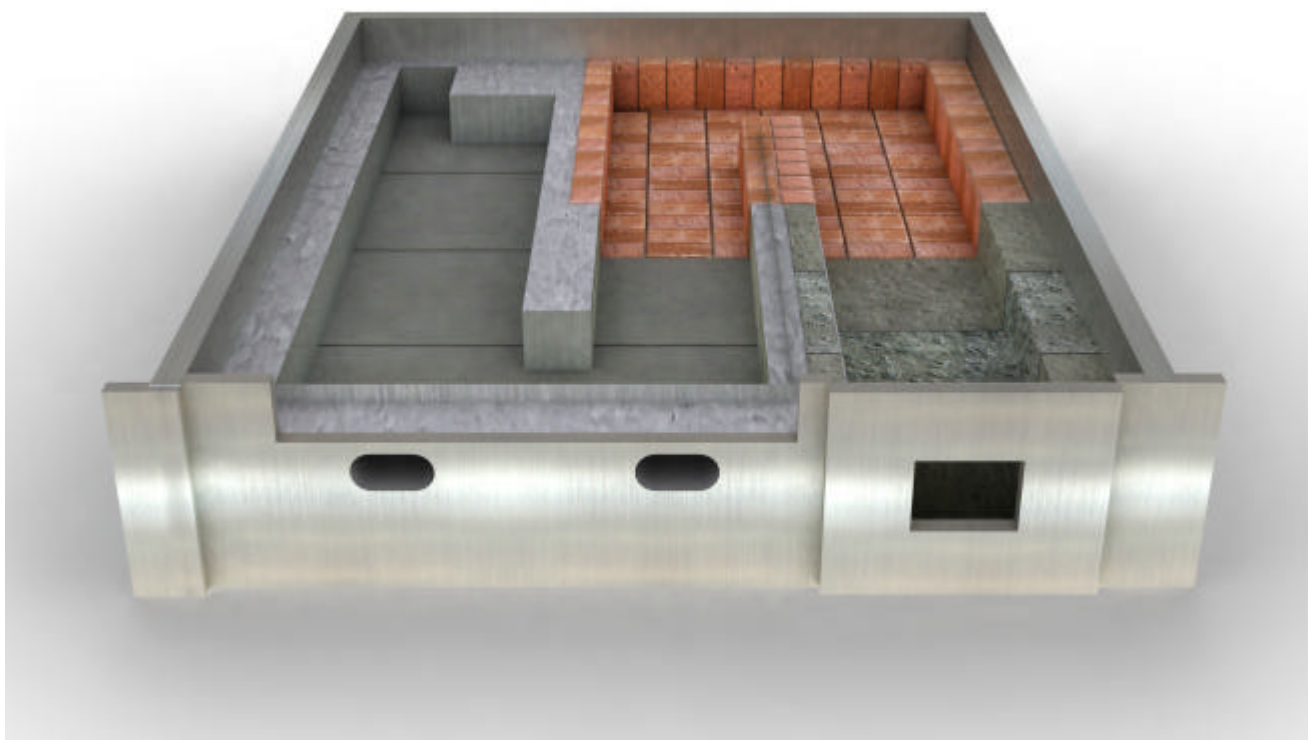
The Service Handbook contains the instructions of instalment and maintenance of the oven.

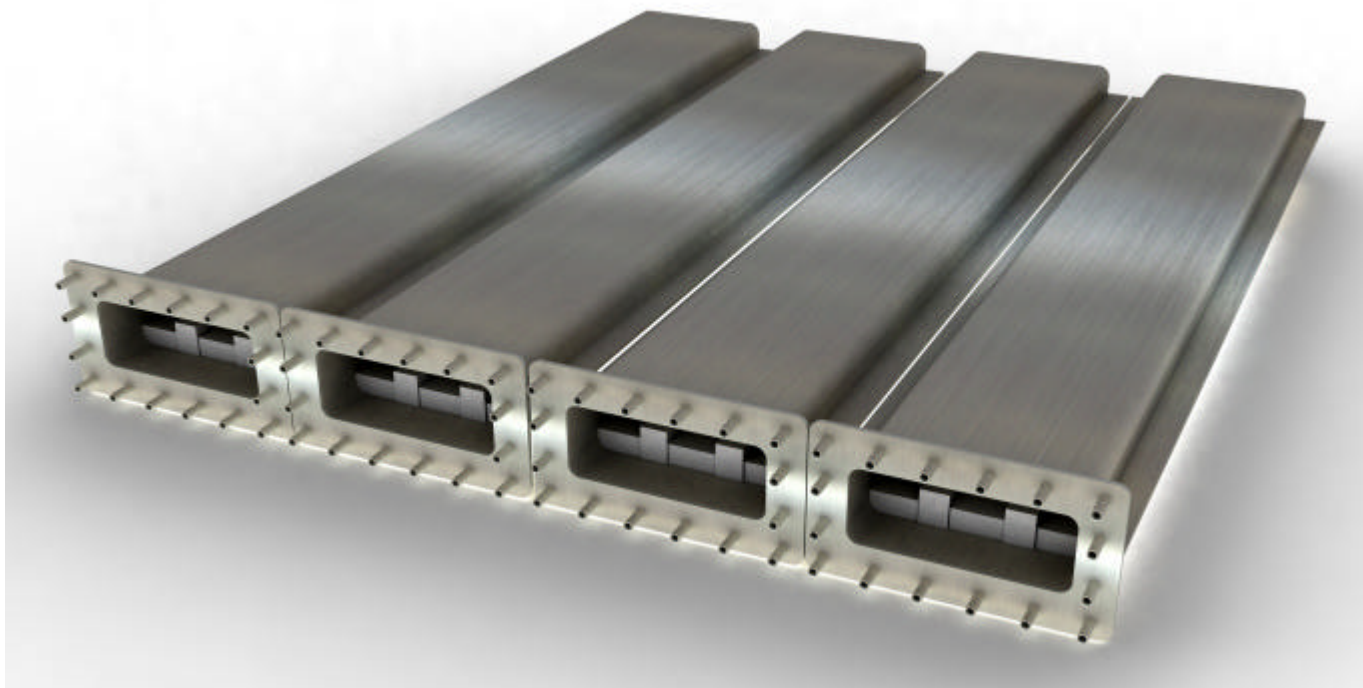
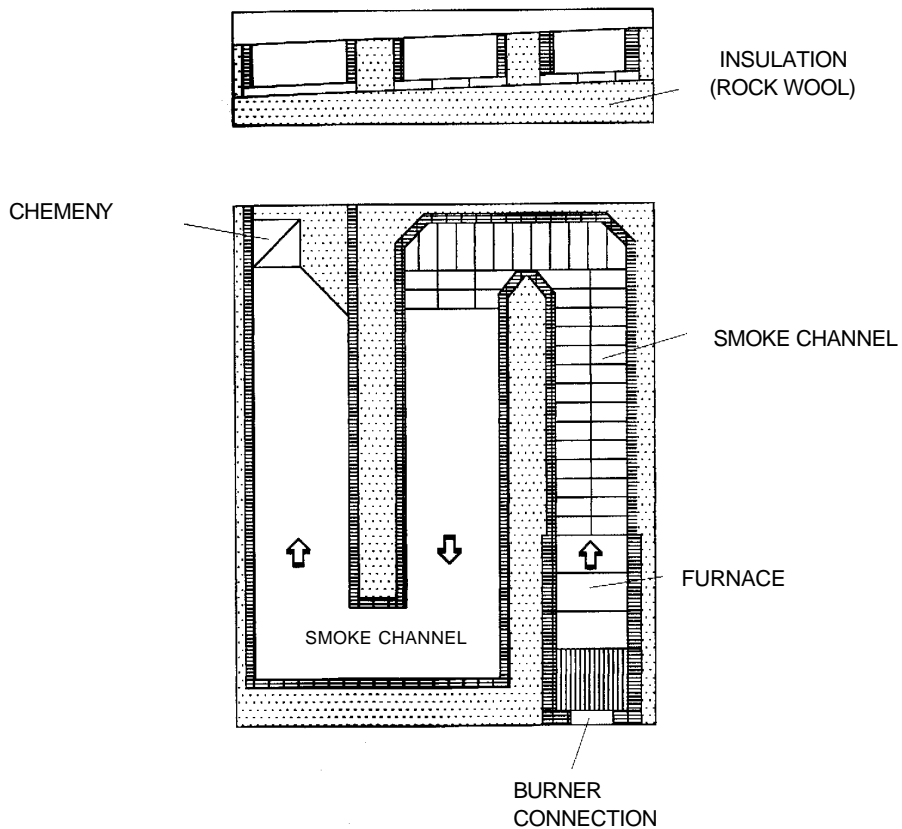


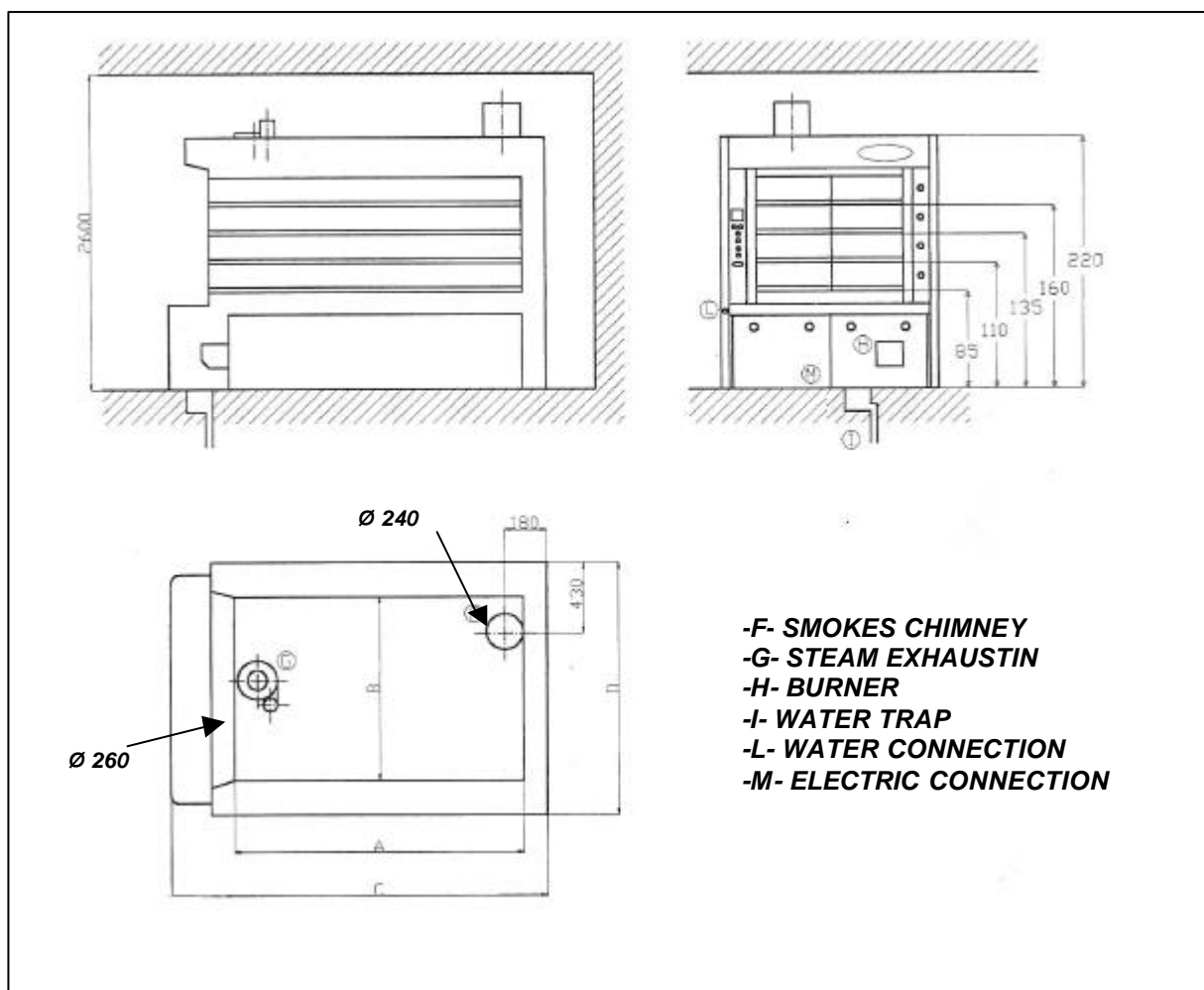
TECHNICAL FEATURES

Model	Baking surface	Power	Weight	Inside dimensions		Outside dimensions		Chambers height				Chamber height
	m ²	kcal/h	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm
420 4C/2P	7,90	65000	8900	1600	1240	2870	1840	850	1100	1350	1600	200
421 4C/2P	9,90	80000	9300	2000	1240	3270	1840	850	1100	1350	1600	200
422 4C/2P	11,90	90000	9700	2400	1240	3670	1840	850	1100	1350	1600	200
330 3C/3P	8,90	70000	8500	1600	1860	2870	2460	1000	1250	1500		200
331 3C/3P	11,20	85000	8900	2000	1860	3270	2460	1000	1250	1500		200
332 3C/3P	13,40	95000	9300	2400	1860	3670	2460	1000	1250	1500		200
430 4C/3P	11,90	90000	9700	1600	1860	2870	2460	850	1100	1350	1600	200
431 4C/3P	14,90	120000	10100	2000	1860	3270	2460	850	1100	1350	1600	200
432 4C/3P	17,90	135000	10500	2400	1860	3670	2460	850	1100	1350	1600	200
440 4C/4P	15,90	125000	10500	1600	2480	2870	3080	850	1100	1350	1600	200
441 4C/4P	19,80	140000	10900	2000	2480	3270	3080	850	1100	1350	1600	200
442 4C/4P	23,80	160000	11300	2400	2480	3670	3080	850	1100	1350	1600	200







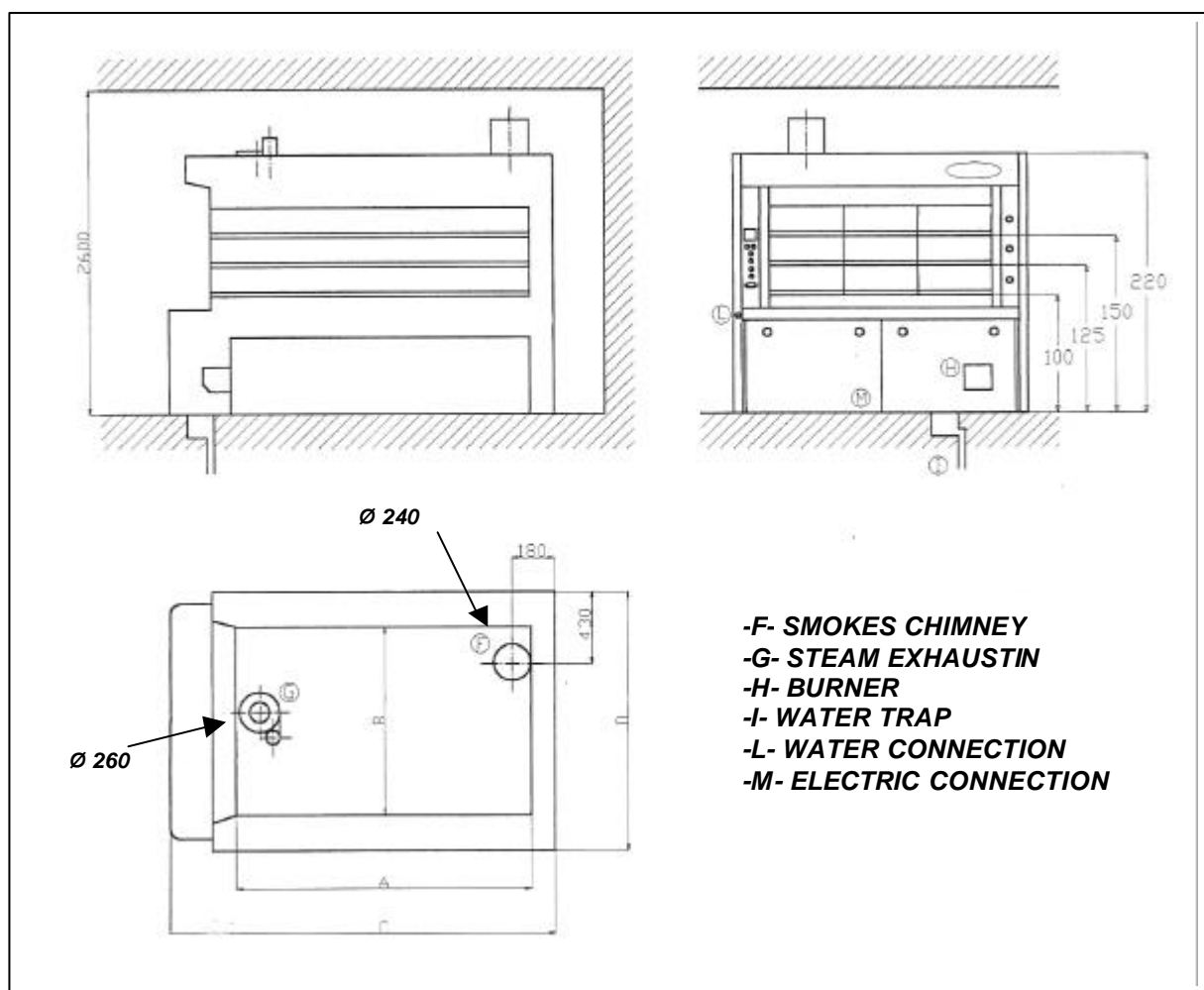
TECHNICAL DATA**FOUR BAKING CHAMBERS**

- F- SMOKE CHIMNEY
- G- STEAM EXHAUSTIN
- H- BURNER
- I- WATER TRAP
- L- WATER CONNECTION
- M- ELECTRIC CONNECTION

ITEM	DIMENSIONS				THERMAL POWER	NOZZLE	BAKING SURFACE
	A mm	B mm	C mm	D mm	Kcal/h	For gas oil only	M ²
TUBIX 420	1600	1240	2870	1840	65.000	1,75x60°	7,9
TUBIX 421	2000	1240	3270	1840	80.000	2,0x60°	9,9
TUBIX 422	2400	1240	3670	1840	90.000	2,0x60°	11,9

GAS/GAS OIL FEED	TUBIX 330 / TUBIX 331 / TUBIX 332
Installed electric power	1,2
Hood exhaust fan	0,6
Burner	0,3
Lighting	0,3
Auxiliary equipment	0,1
UTILIZATION MAX TEMPERATURE (C°)	300°
GAS THERMIC POWER (KW)	81-175
GAS THERMIC POWER (Kcal/h)	50000-15500
GASOIL THERMIC POWER (KW)	80-202
GASOIL THERMIC POWER (Kcal/h)	61600-173400

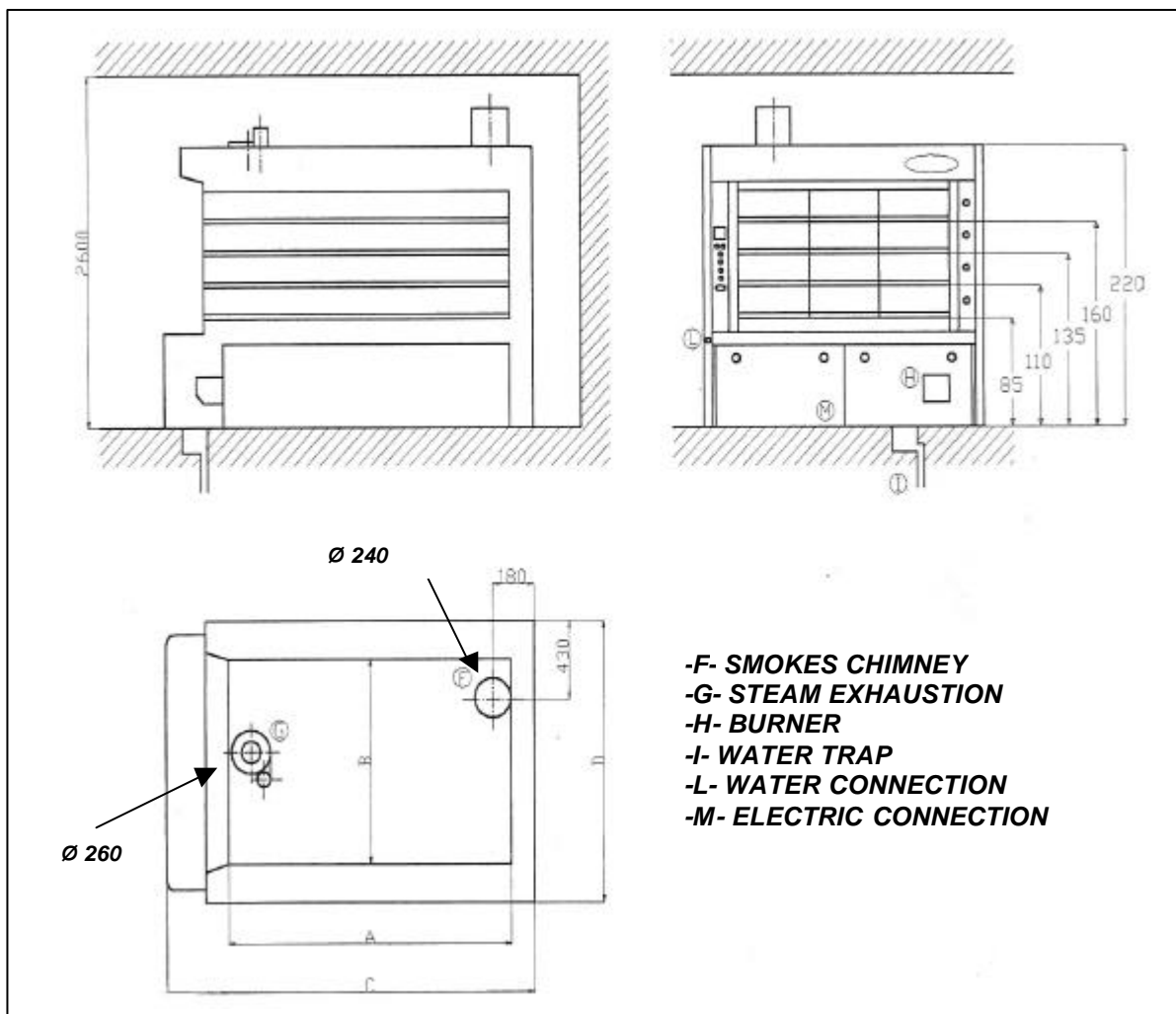
THREE BAKING CHAMBERS



ITEM	DIMENSIONS				THERMAL POWER Kcal/h	NOZZLE For gas oil only	BAKING SURFACE M ²
	A mm	B mm	C mm	D mm			
TUBIX 330	1600	1860	2870	2460	70.000	2x60°	8,9
TUBIX 331	2000	1860	3270	2460	89.600	2,5x60°	11,2
TUBIX 332	2400	1860	3670	2460	100.800	3x60°	13,4

GAS/GAS OIL FEED	TUBIX 330 / TUBIX 331 / TUBIX 332
Installed electric power	1,2
Hood exhaust fan	0,6
Burner	0,3
Lighting	0,3
Auxiliary equipment	0,1
UTILIZATION MAX TEMPERATURE (C°)	300°
GAS THERMIC POWER (KW)	81-175
GAS THERMIC POWER (Kcal/h)	70000-15500
GASOIL THERMIC POWER (KW)	95-202
GASOIL THERMIC POWER (Kcal/h)	81600-173400

FOUR BAKING CHAMBER

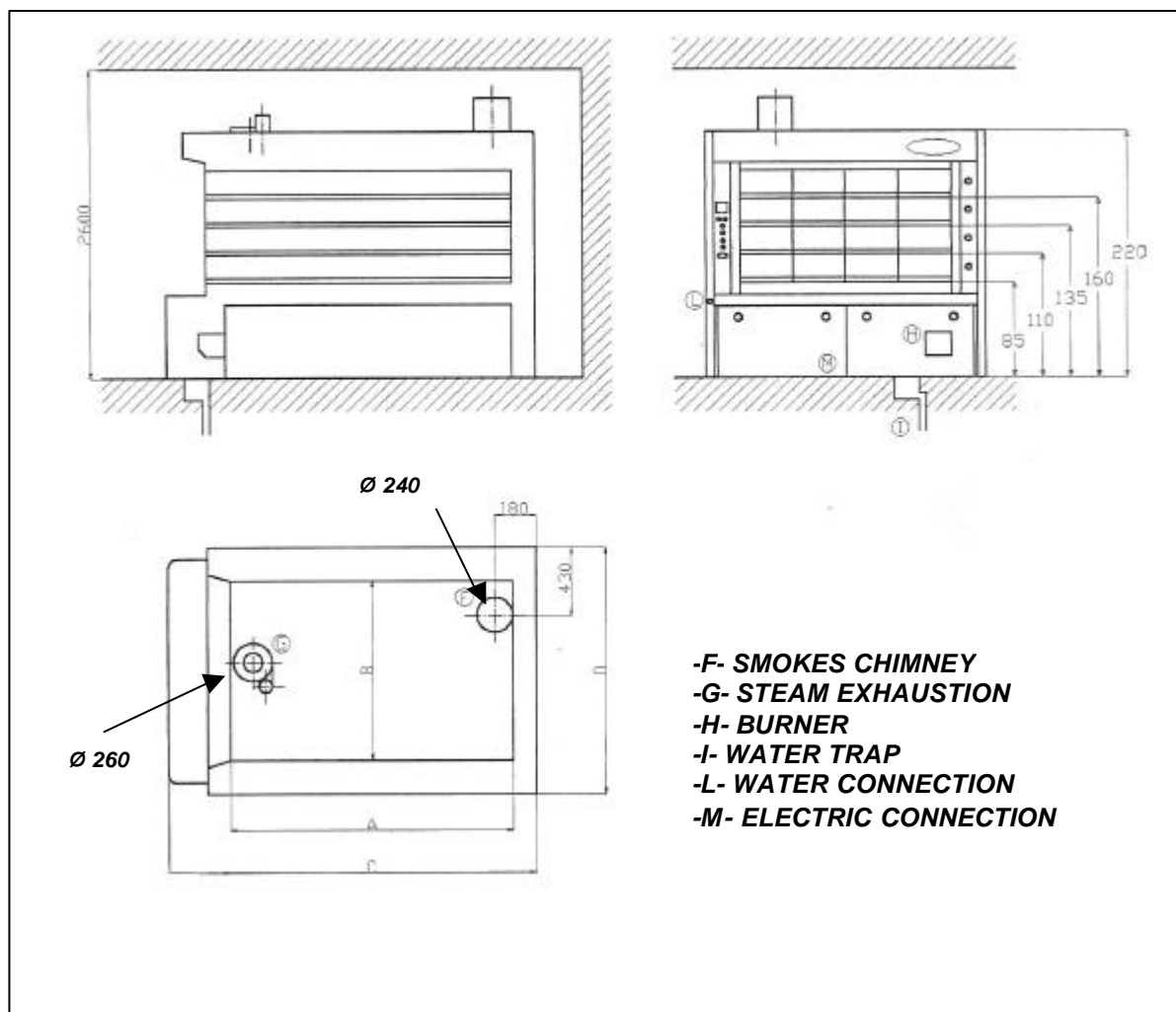


- F- SMOKES CHIMNEY
- G- STEAM EXHAUSTION
- H- BURNER
- I- WATER TRAP
- L- WATER CONNECTION
- M- ELECTRIC CONNECTION

ITEM	DIMENSIONS				THERMAL POWER Kcal/h	NOZZLE For gas oil only	BAKING SURFACE M ²
	A mm	B mm	C mm	D mm			
TUBIX 430	1600	1860	2870	2460	90.000	2,5x60°	11,9
TUBIX 431	2000	1860	3270	2460	124.000	3x60°	14,9
TUBIX 432	2400	1860	3670	2460	144.000	3,5x60°	17,9

GAS/GAS OIL FEED	TUBIX 430 / TUBIX 431 / TUBIX 432
Installed electric power (kW)	1,2
Hood exhaust fan (kW)	0,6
Burner (kW)	0,3
Lighting (kW)	0,3
Auxiliary equipment (kW)	0,1
UTILIZATION MAX TEMPERATURE (C°)	300°
GAS THERMIC POWER (KW)	81-175
GAS THERMIC POWER (Kcal/h)	70000-15500
GASOIL THERMIC POWER (KW)	95-202
GASOIL THERMIC POWER (Kcal/h)	81600-173400

FOUR BAKING CHAMBER



ITEM	DIMENSIONS				THERMAL POWER Kcal/h	NOZZLE For gas oil only	BAKING SURFACE M ²
	A mm	B mm	C mm	D mm			
TUBIX 440	1600	2480	2870	3080	125.000	3,5x60°	15,9
TUBIX 441	2000	2480	3270	3080	140.000	3,5x60°	19,8
TUBIX 442	2400	2480	3670	3080	160.000	4,0x60°	23,8

GAS/GAS OIL FEED	TUBIX 430 / TUBIX 431 / TUBIX 432
Installed electric power (kW)	1,2
Hood exhaust fan (kW)	0,6
Burner (kW)	0,3
Lighting (kW)	0,3
Auxiliary equipment (kW)	0,1
UTILIZATION MAX TEMPERATURE (C°)	300°
GAS THERMIC POWER (KW)	81-175
GAS THERMIC POWER (Kcal/h)	70000-15500
GASOIL THERMIC POWER (KW)	95-202
GASOIL THERMIC POWER (Kcal/h)	81600-173400

CONNECTION

HYDRAULIC: the connection is necessary for the vaporizer of the oven and must be of a minimum diameter of 12 mm and provide filtered water. The outline connection is ½ inc. The water pressure reaching the vaporizer is between 1 and 3.0 bar.

STEAM EXHAUST TO THE DRAUGHT HOOD: the exit diameter is 26 cm. In the coupling area with the exterior piping (this must have a min. section of 0.035 m² it is better to install a box with dimensions of mm 400 x 500 x 400).

The piping of steam exhaust must be slightly inclined to avoid the condensate return in the oven.

EVACUATION OF THE COMBUSTION PRODUCTS: the exit diameter is 24 cm. It is necessary to consider that - in order to obtain a good functioning of the plant - on the base of the chimney there must be a depression within 0.1 ? 0.2 mbar. If possible avoid installing curves in the piping. If chimney and piping are outside the building, it is good standard to cover them with heat insulator materials to obtain a good draught also in the cold season and to avoid vapour condensations.

ELECTRICAL CONNECTION: verify that the voltage of the electric line to the electric box corresponds to the voltage required in the electrical diagram and on the label inside the box. Normally and if here isn't any different request, the connection is 3 phases + neutral, 400 voltage and 50 Hz.

MODEL	BURNER	MODEL DIESEL BURNER	NOZZLE	Kcal/h	KW	Kg/h
420	RIELLO	40 F10	1.75 x 60°	70000	82	7
421	RIELLO	40 F 10	2.00 x 60°	80000	93	8
422	RIELLO	40 F 20	2.00 x 60°	90000	104	8-9
330	RIELLO	40 F 20	2.00 x 60°	75000	87	7-8
331	RIELLO	40 F 20	2.50 x 60°	85000	99	8-9
332	RIELLO	40 F 20	3.00 x 60°	95000	110	9-10
430	RIELLO	40 F 20	2.50 x 60°	90000	104	8-9
431	RIELLO	40 F 20	3.00 x 60°	120000	140	11-12
432	RIELLO	40 F 20	3.50 x 60°	135000	157	13-14
440	RIELLO	40 F 20	3.50 x 60°	125000	145	12-13
441	RIELLO	40 F 20	3.50 x 60°	140000	163	13-14
442	RIELLO	40 F 20	4.00 x 60°	160000	186	15-16

MODEL	BURNER	MODEL GAS BURNER	Kcal/h	KW
420	RIELLO	40 FS15	70000	82
421	RIELLO	40 FS15	80000	93
422	RIELLO	40 FS15	90000	104
330	RIELLO	40 FS15	75000	87
331	RIELLO	40 FS15	85000	99
332	RIELLO	40 FS15	95000	110
430	RIELLO	40 FS15	90000	104
431	RIELLO	40 FS15	120000	140
432	RIELLO	40 FS15	135000	157
440	RIELLO	40 FS15	125000	145
441	RIELLO	40 FS20	140000	163
442	RIELLO	40 FS20	160000	186

