

## **EN - Cooking equipment Series 700**



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## TYPENSCHILD \ PLAQUES DES CARACTERISTIQUES TECHNIQUES \ DATA PLATE

	GAT/KAT	GAS/GAZ	G30	G31	G20	G25	G25.1	G110	G120		Made	In E.	υ.
(18)arikahar	lan .	p mber			20					LV			
	Iap	p mber	-	37	-	-	-	-	-	15			
Bartscher GmbH	Iseep	p mbar	28-30	28-30	-	-	-	-	-	ÇY	MT	HU	
Franz-Kleine-Straße 28	III2E43P	p mbar	-	37	20	25		-		w			
33154 Salzkotten	II26+3+	p mbar	25-30	37	20	25		•		FR	BE		
Designed: 2014	II.2145+	p mbar	30	37	20	-	-	-		π	PT	GR	GB
	II <sub>2H3+</sub>	p mbar	28	37	20	-	-	-	-	E\$	IE	CH	
	E2E3PE/P	p mbar	-	37	20			-		PL.			
	- Datump	p mibar	- 50	50	20	20	-	-		DE			
TYPE	II <sub>2HSBP</sub>	p mbar	40	59	20	-	-	-	-	AT	CH	CZ	SK
SERIE 70	II <sub>21456/P</sub>	p mbar	28-30	28-30	20	-	-	-	-	FI	LT	86	SE
MOD. K7GFB10VVL	112+0542	p mibar	28-30	28-30	20		-			NO	SK	RO	DK
ART. 2855081	II <sub>2H38/P</sub>	p mbar	28-30	28-30	20	•	•			EE	SI	HR	TR
RN 18037GEB10V// 005	II2/1610/P	p mbar	28-30	28-30	25		25	-		HU			1.1
34. 1003701510442005	-II <sub>2.369</sub>	b uspe.	30	30	-	25	-	-	- 3	NL.			2
N 14	III Hoge core	b upa.	28-30	28-30	20			8	8	15E			12
200 m <sup>3/h</sup> 1,48	III1103-000P	p mbar	28-30	29-30	20			8		DK.			1.1
kw 0 v 0 Hz 0 ~	Pendiaposto s gas-Pel Missi de A lastian pe Esponesjangevo pa 3 Segatarora derbem pr	Profesposto s gas-Préra pour gas-Vencinstellang die Gas-Profesposto a gás-Vencinion was gas-Site for care with gas-Properado para gas- Meni de à Ioslani unei gas-Arneti. De ait arritodas med gas-Tanceinia Ministèricia Manufa-Protecced 63 Irog af gas- Espostospistro yna lanetospisto para Johanni na pipe - Tanceinia Ministèricia Manufa-Protecced 63 Irog af gas- Segatarova deriem ar gita - Prepaposobine ca gas - Numetya decijin - Nasterenij na pipe - Pripercijeno za pile - XN 2020.											
4 015613 610986													

# TABELLE GASART $\$ TABLE TYPES DES GAZ $\$ TABLE TYPES OF GAS

Type gaz/ Type of gas/ Gasart	Pn [mbar]	P <sub>min</sub> [mbar]	P <sub>MAX</sub> [mbar]
G20 (Methane) (2H)	20	17	25
G25 (Methane) (2ELL)	20	17	25
G25 (Methane) (2E+)	25	20	30
G25.1 (Methane) (2HS)	25	20	30
G25.3 (Methane) (2EK)	25	20	30
G30 (Butane) (3B/P)	28-30	25	35
G30 (Butane) (3+)	28-30	20	35
G30 (Butane) (3B/P)	50	42,5	57,5
G31 (Propane) (3B/P)	28-30	25	35
G31 (Propane) (3P, 3+)	37	25	45
G31 (Propane) (3B/P)	50	42,5	57,5
G110 (Town gas) (1a)	8	6	15
G120 (Town gas) (1ab)	8	6	15

## GENERAL WARNINGS

- *Read the instructions carefully before installation, use and maintenance of the appliance.*
- The installation has to be performed by qualified personnel following the manufacturer's instructions given in the provided manual.
- The appliance is only suitable for the preparation and cooking of food in industrial kitchens such as those used in restaurants, hospitals, company canteens, cooking centres, butcher's shops and food production firms. Any other type of use is not in accordance with the intended purpose and could place people and/or objects at risk.
- The appliance should only be used by trained personnel and for the use for which it was designed.
- Due to the nature of the appliance, the temperatures required for cooking may cause various areas of the panelling, as well as kitchenware, to become hot. This is not a construction defect, but a physical phenomenon caused by the chemical and physical properties of the materials used for the construction of the appliances.
- In the event of breakdown or malfunction, switch off the appliance and seek help exclusively from an authorized technical assistance centre.
- Only use genuine spare parts; otherwise no liability is assumed by the manufacturer.
- The appliance must not be washed with high pressure water sprays and the vents or inlets/outlets for air, fumes and heat must not be obstructed.
- *Children should be supervised to ensure they do not play with the appliance.*
- Before connecting the device make sure that the plate specifications correspond to the electrical and gas supply.
- When cooking, avoid placing pots and pans and/or crockery on the hotplate that could partially cover the stainless steel part of the hob, otherwise the worktop may overheat.
- When not in use, make sure the appliance is disconnected from the electric mains.
- At the end of the installation the installer must explain and show the functioning of the appliance and shown to the user. After having ensured that everything is clear, the instruction booklet must be handed over.
- <u>The user has to be informed that any building modification or restructuring that may in any way</u> modify the air supply necessary for combustion makes it necessary to carry out another check of the functionality of the appliance. In particular, every variation (additional power) in the appliances in the room may modify the balance of the gas supply in the room. That means that appliances may be fed with gas at lower gas pressure and rate than those provided for and they may give worse performance.

ATTENTION: The manufacturer declines any liability for damage caused by wrong installation, tampering, making unauthorized changes, improper use, poor maintenance, installation of non-original spare parts, not observing local norms, incorrect use or not observing the instructions in this booklet.

Failure to observe even one of the above warnings will immediately void the warranty.

## **TECHNICAL FEATURES**

The following instructions for set up and functioning refer to gas and mixed appliances belonging to categories  $I_{2H}$ ,  $I_{3P}$ ,  $I_{3B/P}$ ,  $II_{HS3B/P}$ ,  $II_{2E3PB/P}$   $II_{2H3+}$ ,  $II_{2H3B/P}$ , with a power pressure for Butane/Propane (G30-G31) of 30/50 mbar and Methane (G20) of 20 mbar. The DATA PLATE showing all the appliance information is to be found inside the right or left side of the control panel, depending on the model.

The appliances have been checked in accordance with the European directives down below:

2014/35/UE - Low Tension (LVD)	
2014/30/UE - Electromagnetic Compatibility (EMC	<u>)</u>
2016/426/UE - Gas Appliances (GAR)	
2006/42/EC - Machinery directive	
2011/65/CE - Rohs	
1935/2004/UE - Food Contact Material (MOCA)	

SVGW Directive G1 Directive for the installation of methane gas appliances in buildings

SVGW Norms L1 Norms for the installation of liquid gas appliances for home, professional use and industry

SVGW Regulation of cantonal applications in Switzerland (for ex. fireproof regulations)

And the particular reference norms.

#### **Declaration of compliance**

The manufacturer declares that the appliances of their production meet the above mentioned EEC directives and requires that installation be done observing the norms in force, particularly regarding the system for letting out fumes and air exchange.

## **PROVISIONS FOR INSTALLATION**

#### Place

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It is advisable to install the appliance in a well-ventilated room or under an extractor hood. The appliance may be installed as a single unit or together with others. In both cases, if it is installed near a wall of inflammable material, a minimum distance according the series (see figure) from the side and back walls must be observed. In the event that it is not possible to observe this distance, protective measures must be taken (e.g. use of sheets of

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0 0 0 0 0





#### Norms and provisions

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Installation operations, gas or voltage conversions to other than the original, starting up the installation or appliance, ventilation, letting out fumes, and maintenance have to be done by qualified personnel following the manufacturer's instructions, observing the norms in force and in compliance with the following provisions (**GB**):

- Gas Safety (Installation and Use) Regulations, 1984
- Health and Safety at Work Act, 1974
- Codes of Practice, BS6173, 1982
- The Building Regulations, 1985
- The Building Standards Regulations, 1981

For others countries follow the relevant local rules for:

- Gas board rules
- Building regulations and local fire prevention provisions
- Safety norms in force
- Provisions of the Gas supplying company
- The Electrical Norms in force
- The Fire Brigade rules.

#### **Fumes evacuation**

#### Type "A1" gas appliances

The deep fat fryers are type A1 gas appliances and it is not necessary to connect directly to an evacuation pipe for combustion products. The products of combustion, however, have to be directed into suitable hoods or similar devices, connected to a reliably efficient chimney, otherwise directly outside. if these devices are not available, it is possible to use an extractor fan connected directly to external environment with a capacity no lower than what is stated in table 1.

This value has to be increased with the air exchange necessary for the operators' well-being in accordance with the norms in force (approximately a total of  $35 \text{ m}^3/\text{h}$  per KW of gas output installed).

#### Type "B21" gas appliance



These appliances must be connected in one of the following ways:

- *Natural evacuation* Connection to reliable chimney with natural pull, interposing a pull device, letting out the products of combustion directly outside.
- Direct forced evacuation

Connection to a chimney with forced pull, putting in a pull device, letting out the products of combustion directly into the external environment. The energy supply to the appliance must be controlled by the system of forced evacuation and must be interrupted if its capacity falls below the values prescribed by the norms in force. Restarting the gas supply must only be done manually.

• Forced evacuation under hood

In this case, the fume evacuation device of the appliance must be brought to a height of 1.8 m from floor level, and the outlet section of the evacuation pipes for products of combustion must be placed inside the base perimeter of the hood. The energy supply to the appliance must be controlled by the system of forced evacuation and must be interrupted if its capacity falls below the values prescribed by the norms in force. Restarting the gas supply must only be done manually.

## **INSTALLATION**

#### **Preliminary operations**

Remove the appliance from the packaging, ensure that it is intact and, if in doubt, do not use it but contact professionally qualified personnel. The packaging materials are compliant with environmental safety regulations. They can be stored without risk, or else should be disposed of in accordance with current national regulations, particularly those regarding the nylon bag and the polystyrene.

After verifying that the appliance is in good conditions, the protective film may be removed. Clean the external parts of the appliance carefully with warm water and detergent, using a cloth to remove all remaining residues and then dry it with a soft cloth. If there are still traces of glue, these can be removed using a suitable solvent (e.g. acetone). <u>Under no circumstances should abrasive substances be used</u>. After the installation the appliance should be levelled by lowering or raising the adjustable legs.

#### **Gas Connection**

Before connecting the appliance, it is necessary to check that the type of gas available corresponds to the type of gas the appliance has been set for. In the event that they do not correspond, it is necessary to proceed as described in the paragraph *Functioning with a gas type different from the type provided for*. The connection to the screwed pipe joints, which have a diameter of ½ inch and are situated on the appliance bottom, may be fixed or mobile by using a fitting quick-coupler. If flexible piping is used, it has to be made of stainless steel and meet the regulations in force. All the seals on the junction threads have to be made of materials certified for gas use. In order to ensure a quick interruption of the gas supply, before setting up each single appliance, it is possible to turn off the gas supply when the appliance is not used. After completing the connection, the tightness of the cut-off cock has to be checked by using a leak-finder spray.

#### **Electric connection**

Before connecting the appliance, it is necessary to check that the voltage of the available power supply corresponds to the voltage the appliance has been set for. If they do not correspond, it is necessary to modify the connection as shown in the electric diagram, if voltage change is provided for. The junction box is situated behind the control panel of the top and it is made accessible by unscrewing the screws that fix the panel, removing it and taking out the junction box.

Furthermore, it is necessary to check that the earthing wire is efficient, that the earth conductor on

the connecting side is longer than the other conductors, that the connecting cable has a wire bunch adequate for the power absorbed by the appliance, and that the connecting cable is at least type H07 RN-F. It is necessary to run the cable first through the cable gland. *If the supply cord is damaged, it must be replaced by the manufacturer service* 



agent or similarly qualified persons in order to avoid a hazard. As in international provisions, before setting up the appliance a unipolar device has to be installed with a contact opening of at least 3 mm that must not interrupt the YELLOW-GREEN earthing wire. This device has to be installed near the appliance, has to be approved, and has to have adequate capacity for the absorption of the appliance (see table TECHNICAL FEATURES).

The appliance has to be connected to the EQUIPOTENTIAL system. The connector is situated near the end of the electric cable and it is identified by a label with the symbol shown.

While using a safety thermostat for breakdown tensions, it is necessary to note what follows:

- According to the normative law in force, the leakage of electric power for this kind of appliances can have a value of 1 mA without limitations for the maximum for each kW of installed power. Besides, it must be noted that all the switches for breakdown to be found on the market have a tolerance for the operating tension of less than the 50%; therefore, a suitable switch has to be chosen.
- Connect only a single appliance to each switch.
- In some cases, after long periods of inactivity or in case of a new installation, it is possible that the appliance switches off during the setting-up. The main reason is usually the moist produced during the isolation. The problem can be easily solved through a short pre-heating bypassing the safety thermostat.

#### FOR PASTA COOKERS ONLY

#### **Connection to the water mains**

Connect the water inlet pipe to the mains, following the rules stipulated by the norms in force.

#### Drainage

The drainage pipe must not be connected directly to a common drain, but positioned over a reservoir, at a distance which does not allow it come into contact with the sides of the reservoir or with the water inside it, in order to avoid contaminating the food in the tank.

#### Checking gas tightness and pressure



Before checking the gas pressure, it is necessary to check the tightness of the gas installation up to the nozzle with a leak-finder spray to ensure that no damage has been done to the appliance during transportation. Then, it is possible to check the inlet pressure, which can be carried out by means of a pressure gauge, either a "U" gauge or an electronic gauge with a minimum definition of 0,1 mbar. In order to measure the gas pressure, remove the screw (1) from the pressure outlet (2) and connect

it to the pressure gauge pipe. Open the appliance gas supply valve, check the pressure output, and close the valve. Remove the pressure gauge pipe and screw the screws correctly into the pressure outlet. The pressure valve has to be within the minimum and maximum values shown in the table TYPES OF GAS.

If the pressure measured is not within the limits shown in the table, find out the cause. After solving the problem, check the pressure again.

#### Checking the appliance power

Normally it is sufficient to check that the nozzles installed are the right ones and that the burners function properly. If desired, it is possible to check the power absorbed by using the "Volumetric Method", measuring the volume of gas output supplied to the appliance in time units with the aid of a chronometer and a counter. The right comparison volume [E], measured in litres per hour (l/h) or in litres per minute (l/min), can be obtained using the formula shown below dividing the nominal and minimum outputs (power) shown in the table of burner features by the lowest heat capacity of the gas type pre-arranged for the appliance. This value can be found in the norm tables or can be provided by the local gas supply company.

The reading has to be done when the appliance is already in function.

#### **Checking pilot burner**

Check the flame of the pilot burner, which must be neither too short nor too high but must lap the thermocouple and have a sharp form; otherwise, it is necessary to check the size of the nozzle depending on the pilot version, as specified in the following paragraphs.

#### Checking regulation of primary air

All the main burners are provided with primary air regulation. It is necessary to carry out the check observing the values shown in the air regulation column of the burner features tables. In order to regulate the primary air, proceed as specified in the following paragraphs.

## ATTENTION! All the parts protected and sealed by manufacturer can not be regulated by the installer if not specifically indicated.

## MAINTENANCE

## **ATTENTION!** Before doing any kind of maintenance or repairs, make sure that the appliance is disconnected from the electric mains and that the gas cut-off valve is closed.

The following maintenance operations have to be carried out at least once a year by specialized personnel. It is advisable to have a maintenance contract.

- Check for correct functioning of all control and safety devices;
- Check for correct ignition of burners and proper functioning at minimum;
- Check the tightness of the gas pipes;
- Check the condition of the power cable;

- Clean the evacuation pipes of type "B" appliances, following the prescriptions in force in the country of installation;
- The gas tap should be lubricated, but this operation is quite difficult and its results are not very reliable. Therefore, it is advisable to substitute the gas tap.

GAS RANGES SERIES 700

Technical features p.27 Burners Features p. 28 Dimensions p. 42 Description of appliances p. 72 Regulation using a different type of gas p. 73 Substituting components p. 76 Operating anomalies p. 77 Instructions for Use p. 78 Device care and cleaning p. 81

## TECHNISCHE DATEN CARACTERISTIQUES TECHNIQUES TECHNICAL FEATURES

Modell Modèle Model		2851121	2851051	2851161	2851251	2851261	2851371	2851271	2851241	2851361
Masse Dimensions Dimensions	[mm]	400 700 850	800 700 850	1200 700 850	800 700 850	1200 700 850	1200 700 850	800 700 850	800 700 850	1200 700 850
Gas Gaz Gas (B)	[KW]	14,7	29,4	44,1	36,9	51,6	57,6	29,4	29,4	44,1
Typ Type Typ (A)		A1								
GPL LPG (G30) (D)	[Kg/h]	0,915	1,830	2,744	2,382	3,298	4,542	1,830	1,830	2,744
Erdgas Methane (G20) (C)	[m3/h]	1,556	3,111	4,667	3,905	5,460	6,095	3,111	3,111	4,667
Luft Air Air	[m3/h]	29,4	58,8	88,2	73,8	103,2	115,2	58,8	58,8	88,2
Gasanschluss Racc. Gaz Gas fitting		UNI-ISO 7/1 R ½								
Elektr. Electr. (E)	[KW]	-	-	-	-	-	-	5,4	3,65	3,65
(F)	[Volts]	-	-	-	-	-	-	230 1 - 400 3N	230 1 –400 3N	$\begin{array}{c} 230\ 1-400\\ 3N \end{array}$
(G)	[Hz]	-	-	-	-	-	-	50/60	50/60	50/60
Kabel Cable H07 RN-F	[mm2]	-	-	-	-	-	-	4x2.5 5x1.5	3x2,5 5x1	3x2,5 5x1
Brenner Bruleur Burner C	6,2 kW [N°]	1	2	3	2	3	3	2	2	3
Brenner Bruleur Burner D	8,5 kW [N°]	1	2	3	2	3	3	2	2	3
Ofen Four Oven G	7,5 kW [N°]	-	-	-	1	1	-	-	-	-
Ofe Four Oven H	13.5 kW [N°]	-	-	-	-	-	1	-	-	-
Elektro-BO Four electr. Electric Oven	3,65 kW [N°]	-	-	-	-	-	-	-	1	1
Elektro-BO Four electr. Electric Oven	5,4 kW [N°]	-	-	-	-	-	-	1	-	-

## BRENNEREINGESCHAFTEN CARACTÉRISTIQUES BRÛLEURS BURNER FEATURES

## **SERIE 700**

### (Tabelle/Tableau/Table 31) (LV - CAT. I<sub>2H</sub>)

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]				
BRENNER/BRULEUR/BURNER C Ø 65										
Natural Methane Gas (G20)	6,2	1,9	180	100	35	12,0				
BRENNER/BRÛLEUR/BURNER D Ø 95										
Natural Methane Gas (G20)	8,5	2,1	215	105	35	12,0				
TUTTAPIASTRA	COUP DE FE	U/GAS SOLII	) TOPS/GLÜPLA	ATTENHERDI	E/PLACA RAD	IANTE				
Natural Methane Gas (G20)	11,5	3,6	260	Reg.	27,2	1,0				
	F	ORNO /FOUR	/OVEN /BO /HO	ORNO						
Natural Methane Gas (G20)	7,50	-	AL 200	-	27,2	0				
FO	RNO MAXI/F	OUR MAXI/M	AXI OVEN/MAX	XI-BO/HORNO	O MAXI					
Natural Methane Gas (G20)	13,5	-	AL 285	_	27	25,0				

### (Tabelle/Tableau/Table 32) (IS - CAT. I<sub>3P</sub>)

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]				
BRENNER/BRÛLEUR/BURNER C Ø 65										
Liquid Gas LPG (G31)	5,4	1,4	110	55	21	18,0				
BRENNER/BRÛLEUR/BURNER D Ø 95										
Liquid Gas LPG (G31)	6,8	2,6	125	82	21	20,0				
TUTTAPIASTRA	COUP DE FE	EU/GAS SOLII	) TOPS/GLÜPLA	ATTENHERDI	E/PLACA RAD	IANTE				
Liquid Gas LPG (G31)	11,5	3,6	170	100	16,2	3,0				
	FORNO /FOUR /OVEN /BO /HORNO									
Liquid Gas LPG (G31)	7	-	AL 135	-	16,2	1,0				
FO	FORNO MAXI/FOUR MAXI/MAXI OVEN/MAXI-BO/HORNO MAXI									
Liquid Gas LPG (G31)	13,5	-	AL 190	-	19	39,0				

## (Tabelle/Tableau/Table 33) (CY, MT, NL, HU - only 2851371) - CAT. I<sub>3B/P 29mbar</sub>)

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto	Aria/Air/Luf t/Aire "x" [mm]					
	BRENNER/BRÛLEUR/BURNER C Ø 65										
Liquid Gas LPG (G30-G31)	5,4	1,4	110	55	21	18,0					
BRENNER/BRÛLEUR/BURNER D Ø 95											
Liquid Gas LPG (G30-G31)	6,8	2,6	125	82	21	20,0					
TUTTAPIASTRA	<b>A/COUP DE FE</b>	U/GAS SOLIE	) TOPS/GLÜPLA	ATTENHERDI	E/PLACA RAD	IANTE					
Liquid Gas LPG (G30-G31)	11,5	3,6	170	100	16,2	3,0					
	FORNO /FOUR /OVEN /BO /HORNO										
Liquid Gas LPG (G30-G31)	7	-	AL 135	-	16,2	1,0					
FO	FORNO MAXI/FOUR MAXI/MAXI OVEN/MAXI-BO/HORNO MAXI										
Liquid Gas LPG (G30-G31)	13,5	-	AL 190	-	19	39,0					

### (Tabelle/Tableau/Table 34) (HU - only 2851371) - CAT. I<sub>3B/P 50 mbar</sub>)

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]				
BRENNER/BRÛLEUR/BURNER C Ø 65										
Liquid gas LPG (G30-G31)	5,4	1,7	100	55	21	14,0				
BRENNER/BRÛLEUR/BURNER D Ø 95										
Liquid gas LPG (G30-G31)	6,8	3,3	110	82	20	14,0				
TUTTAPIASTRA	COUP DE FE	U/GAS SOLII	D TOPS/GLÜPLA	ATTENHERDI	E/PLACA RAD	IANTE				
Liquid gas LPG (G30-G31)	11,5	3,6	150	85	16,2	2,0				
	F	'ORNO /FOUR	/OVEN /BO /HO	ORNO						
Liquid gas LPG (G30-G31)	7	-	AL 115	-	16,2	0				
FO	FORNO MAXI/FOUR MAXI/MAXI OVEN/MAXI-BO/HORNO MAXI									
Liquid gas LPG (G30-G31)	13,5	-	AL 165	-	19	39,0				

(Tabelle/Tableau/Table 35) I, PT, CH, GR, GB, IE, ES – CAT.  $II_{2H3+}$ )

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]				
	B	RENNER/BRÛ	LEUR/BURNER	R C ø 65						
Natural Methan gas (G20)	6,2	1,9	180	100	35	12,0				
Liquid gas LPG (G30-G31)	5,4	1,4	110	55	21	18,0				
BRENNER/BRÛLEUR/BURNER D ø 95										
Natural Methan gas (G20)	8,5	2,1	215	105	35	12,0				
Liquid gas LPG (G30-G31)	6,8	2,6	125	82	21	20,0				
TUTTAPIASTRA/COUP DE FEU/GAS SOLID TOPS/GLÜPLATTENHERDE/PLACA RADIANTE										
Natural Methan gas (G20)	11,5	3,6	260	Reg.	27,2	1,0				
Liquid gas LPG (G30-G31)	11,5	3,6	170	100	16,2	3,0				
	F	<b>ORNO /FOUR</b>	R /OVEN /BO /HO	ORNO	•					
Natural Methan gas (G20)	7,50	-	AL 200	-	27,2	0				
Liquid gas LPG (G30-G31)	7	-	AL 135	-	16,2	1,0				
FORNO MAXI/FOUR MAXI/MAXI OVEN/MAXI-BO/HORNO MAXI										
Natural Methan gas (G20)	13,5	-	AL 285	-	27	25,0				
Liquid gas LPG (G30-G31)	13,5	-	AL 190	-	19	39,0				

(Tabelle/Tableau/Table 36) (FI, LT, BG, SE, DK, NO, SK, RO, EE, SI, HR, TR - CAT. II<sub>2H3B/P 29mbar</sub>)

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]			
	BR	RENNER/BRÛI	LEUR/BURNER	C Ø 65					
Natural Methane Gas (G20)	6,2	1,9	180	100	35	12,0			
Liquid Gas LPG (G30-G31)	5,4	1,4	110	55	21	18,0			
	BR	RENNER/BRÛI	LEUR/BURNER	D Ø 95					
Natural Methane Gas (G20)	8,5	2,1	215	105	35	12,0			
Liquid Gas LPG (G30-G31)	6,8	2,6	125	82	21	20,0			
TUTTAPIASTRA/COUP DE FEU/GAS SOLID TOPS/GLÜPLATTENHERDE/PLACA RADIANTE									
Natural Methane Gas (G20)	11,5	3,6	260	Reg.	27,2	1,0			
Liquid Gas LPG (G30-G31)	11,5	3,6	170	100	16,2	3,0			
	F	ORNO /FOUR	/OVEN /BO /HO	ORNO					
Natural Methane Gas (G20)	7,50	-	AL 200	-	27,2	0			
Liquid Gas LPG (G30-G31)	7	-	AL 135	-	16,2	1,0			
FO	RNO MAXI/F	OUR MAXI/M	AXI OVEN/MAX	XI-BO/HORNO	) MAXI				
Natural Methane Gas (G20)	13,5	-	AL 285	-	27	25,0			
Liquid Gas LPG (G30-G31)	13,5	-	AL 190	-	19	39,0			

(1abelle/1ableau/1able 57)(CH, CZ, SK, DL, A1 - CA1. 112H3B/P 50 mbar)									
			Ø Ugello/Gicleur/	<i></i>	Pilota/Veilleu se/Pilot/Zünd	Aria/Air/Luf			
Tipo gas/ Type gaz/	MAX	MIN	Injector/Düse/	Ø By-pass	flamme/	t/Aire "x"			
Gas Type/ Gasart	[kW]	[kW]	Invector	[1/100 mm]	Piloto	[mm]			
			[1/100  mm]		[N°]	[IIIII]			
	BI	RENNER/BRÛ	LEUR/BURNER	C ø 65					
Natural Methan gas		1.0	100	100	27	10.0			
(G20)	6,2	1,9	180	100	35	12,0			
Liquid gas LPG	5 4	17	100	55	21	14.0			
(G30-G31)	5,4	1,/	100	33	21	14,0			
BRENNER/BRÛLEUR/BURNER D ø 95									
Natural Methan gas	8,5	2.1	215	105	35	12.0			
(G20)		2,1		105	35	12,0			
Liquid gas LPG	68	33	110	82	20	14.0			
(G30-G31)	0,0	5,5	110	02	20	14,0			
TUTTAPIASTRA/COUP DE FEU/GAS SOLID TOPS/GLÜPLATTENHERDE/PLACA RADIANTE									
Natural Methan gas	11.5	3.6	260	Pag	27.2	1.0			
(G20)	11,5	5,0	200	Keg.	21,2	1,0			
Liquid gas LPG	11.5	3.6	150	85	16.2	2.0			
(G30-G31)	11,5	5,0	150	05	10,2	2,0			
	F	ORNO /FOUR	/OVEN /BO /HO	ORNO		-			
Natural Methan gas	7.50		AT 200		27.2	0			
(G20)	7,50	-	AL 200	-	27,2	0			
Liquid gas LPG	7		AT 115		16.2	0			
(G30-G31)	/	-	AL 115	-	10,2	0			
FO	RNO MAXI/F	OUR MAXI/M	AXI OVEN/MAX	XI-BO/HORNO	D MAXI				
Natural Methan gas	13.5		AT 285		27	25.0			
(G20)	15,5	-	AL 285	-	21	23,0			
Liquid gas LPG	13.5	_	AL 165	-	19	39.0			
(G30-G31)	15,5	-			17	59,0			

## (Tabelle/Tableau/Table 37) (CH, CZ, SK, DE, AT – CAT. II<sub>2H3B/P 50 mbar</sub>)

	``````````````````````````````````````		, ,	*	- /					
Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Invector	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto	Aria/Air/Luf t/Aire "x"				
			[1/100  mm]		[N°]	[]				
	BI	RENNER/BRÛ	LEUR/BURNER	C ø 65		1				
Natural Methan gas	6.2	1.0	190	100	25	12.0				
(G20)	0,2	1,9	180	100	55	12,0				
Liquid gas LPG	5.4	1.4	110	55	21	18.0				
(G31)	5,4	1,4	110	55	21	10,0				
BRENNER/BRÛLEUR/BURNER D ø 95										
Natural Methan gas	8 5	2.1	215	105	35	12.0				
(G20)	0,5	2,1	215	105	55	12,0				
Liquid gas LPG	6.8	2.6	125	82	21	20.0				
(G31)	0,0	2,0	125	82	21	20,0				
TUTTAPIASTRA/COUP DE FEU/GAS SOLID TOPS/GLÜPLATTENHERDE/PLACA RADIANTE										
Natural Methan gas	11.5	3.6	260	Pag	27.2	1.0				
(G20)	11,5	3,6	200	Keg.	21,2	1,0				
Liquid gas LPG	11.5	3.6	170	100	16.2	2.0				
(G31)	11,5	5,0	170	100	10,2	5,0				
	F	ORNO /FOUR	/OVEN /BO /HO	ORNO						
Natural Methan gas	7 50		AT 200		27.2	0				
(G20)	7,50	-	AL 200	-	27,2	0				
Liquid gas LPG	7		AT 135		16.2	1.0				
(G31)	/	-	AL 155	-	10,2	1,0				
FO	RNO MAXI/F	OUR MAXI/M	AXI OVEN/MAX	XI-BO/HORNO	) MAXI					
Natural Methan gas	12.5		AT 285		27	25.0				
(G20)	13,3	-	AL 285	-	21	25,0				
Liquid gas LPG	13.5		AL 190	-	19	39.0				
(G31)	15,5	-			17	57,0				

## (Tabelle/Tableau/Table 38) (LU – CAT. $II_{2E3P}$ )

m: (m (			Ø Ugello/Gicleur/	<i>d</i> D	Pilota/Veilleu se/Pilot/Zünd	Aria/Air/Luf
Gas Type gaz/		MIN [kW]	Injector/Düse/	Ø By-pass	flamme/	t/Aire "x"
Clas Type/ Clasart			Inyector	[1/100 mm]	Piloto	[mm]
			[1/100 mm]		[N°]	
	BI	KENNER/BRU	LEUR/BURNER	C Ø 65		
Natural Methan gas	6,2	1,9	180	100	35	12,0
(G20) Natural Mathan and						
(G25)						
(G23)						
(G30-G31)	5,4	1,4	110	55	21	18,0
(050 051)	BI	RENNER/BRÛ	LEUR/BURNER	D ø 95		
Natural Methan gas				107	27	12.0
(G20)	8,5	2,1	215	105	35	12,0
Natural Methan gas						
(G25)						
Liquid gas LPG	6.9	26	125	<u>0</u> 2	21	20.0
(G30-G31)	0,8	2,0	125	82	21	20,0
TUTTAPIASTRA/COUP DE FEU/GAS SOLID TOPS/GLÜPLATTENHERDE/PLACA RADIANTE						
Natural Methan gas	11.5	3.6	260	Rea	27.2	1.0
(G20)	11,5	5,0	200	nog.	27,2	1,0
Natural Methan gas	11.5	3.6	260	Reg.	27.2	1.0
(G25)	11,0	2,0		1008.	,	1,0
Liquid gas LPG	11.5	3.6	170	100	16.2	3.0
(G30-G31)	7-				- 7	- , -
FORNO /FOUR /OVEN /BO /HORNO						
Natural Methan gas	7,50	-	AL 200	-	27,2	0
(G20) Natural Mathan gas						
(G25)	7,55	-	200R	-	27,2	3,0
Liquid gas LPG						
(G30-G31)	7	-	AL 135	-	16,2	1,0
(000 001)						
FO	RNO MAXI/F	OUR MAXI/M	AXI OVEN/MAX	XI-BO/HORNO	O MAXI	
Natural Methan gas	125		AL 295		27	25.0
(G20)	15,5	-	AL 285	-	27	25,0
Natural Methan gas	13.5		AL 295		27	25.0
(G25)	13,3	-	AL 275	-	21	23,0
Liquid gas LPG	13.5	_	AL 190	_	19	39.0
(G30-G31)	13,5	-	AL 170	_	1)	57,0

(Tabelle/Tableau/Table 39) (FR, BE– CAT.  $II_{2E+3+}$ )

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]
	BR	RENNER/BRÛI	LEUR/BURNER	C Ø 65		
Natural Methane Gas (G20)	6,2	1,9	180	100	35	12,0
Liquid Gas LPG (G30-G31)	5,4	1,5	105	55	21	16,0
	BR	RENNER/BRÛI	LEUR/BURNER	D Ø 95		
Natural Methane Gas (G20)	8,5	2,1	215	105	35	12,0
Liquid Gas LPG (G30-G31)	6,8	3,0	120	82	21	20,0
TUTTAPÍASTRA/COUP DE FEU/GAS SOLID TOPS/GLÜPLATTENHERDE/PLACA RADIANTE						
Natural Methane Gas (G20)	11,5	3,6	260	Reg.	27,2	1,0
Liquid Gas LPG (G30-G31)	11,5	3,6	170	100	16,2	3,0
	F	ORNO /FOUR	/OVEN /BO /HO	ORNO		
Natural Methane Gas (G20)	7,50	-	AL 200	-	27,2	0
Liquid Gas LPG (G30-G31)	7,0	-	AL 125	-	16,2	1
FORNO MAXI/FOUR MAXI/MAXI OVEN/MAXI-BO/HORNO MAXI						
Natural Methane Gas (G20)	13,5	-	AL 285	-	27	25,0
Liquid Gas LPG (G30-G31)	13,5	-	AL 190	-	19	39,0

## (Tabelle/Tableau/Table 40) (PL - CAT. $II_{2E3PB/P}$ )

(Tabelle/Tableau/Table 41) (DE–KAT.	II <sub>2ELL3B/P</sub> )
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Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]
	BI	RENNER/BRÛ	LEUR/BURNER	C ø 65		
Natural Methan gase (G20)	6,2	1,9	180	100	35	12,0
Natural Methan gase (G25)	5,5	1,5	190	100	35	7,0
Liquid gas LPGe GPL (G30-G31)	5,4	1,7	100	55	21	14,0
	BI	RENNER/BRÛ	LEUR/BURNER	D ø 95	1	1
Natural Methan gase (G20)	8,5	2,1	215	105	35	12,0
Natural Methan gase (G25)	7,5	1,7	225	105	35	7,0
Liquid gas LPGe GPL (G30-G31)	6,8	3,3	110	82	20	14,0
TUTTAPIASTRA	COUP DE FE	U/GAS SOLII	<b>TOPS/GLÜPL</b>	ATTENHERDI	E/PLACA RAD	IANTE
Natural Methan gase (G20)	11,5	3,6	260	Reg.	27,2	1,0
Natural Methan gase (G25)	11,5	3,6	280	Reg.	27,2	1,0
Liquid gas LPGe GPL (G30-G31)	11,5	3,6	150	85	16,2	2,0
FORNO /FOUR /OVEN /BO /HORNO						
Natural Methan gase (G20)	7,50	-	AL 200	-	27,2	0
Natural Methan gase (G25)	7,20	-	AL 220	-	27,2	0
Liquid gas LPGe GPL (G30-G31)	7	-	AL 135	-	16,2	1,0
FORNO MAXI/FOUR MAXI/MAXI OVEN/MAXI-BO/HORNO MAXI						
Natural Methan gase (G20)	13,5	-	AL 285	-	27	25,0
Natural Methan gase (G25)	13,5	-	AL 305	-	27	25,0
Liquid gas LPGe GPL (G30-G31)	13,5	-	AL 165	-	19	39,0

			á		D'1 / // '11	
Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]
	BF	RENNER/BRÛ	LEUR/BURNER	C Ø 65	•	•
Natural Methane Gas	6,2	1,9	180	100	35	12,0
(G20)						
(G25.3)	5,5	1,7	180	100	35	7,0
Liquid Gas LPG	5,4	1,4	110	55	21	18,0
(050-051)	DI	ENNED/DDÎ	I FUD/DUDNED	D Ø 05		
Natural Mathana Cas	Dr	LININEK/DRU	LEUK/DUKINEK	D Ø 95		[
(G20)	8,5	2,1	215	105	35	12,0
Natural Methane Gas	8.0	19	215	105	35	7.0
(G25.3)	0,0	1,9	215	105	55	7,0
Liquid Gas LPG	6,8	2,6	125	82	21	20,0
(G30-G31) 5,5 2,5 125 52 21 26,5						
TUTTAPIASTRA/COUP DE FEU/GAS SOLID TOPS/GLUPLATTENHERDE/PLACA RADIANTE						
(G20)	11,5	3,6	260	Reg.	27,2	1,0
Natural Methane Gas	11,5	3,6	260	Reg.	27,2	1,0
Liquid Gas LPG	115	2.6	170	100	16.2	2.0
(G30-G31)	11,5	3,0	170	100	16,2	3,0
FORNO /FOUR /OVEN /BO /HORNO						
Natural Methane Gas	7 50	_	AL 200	_	27.2	0
(G20)	1,50		THE 200		27,2	0
(G25.3)	7,40	-	AL 205	-	27,2	0
Liquid Gas LPG	7		AL 125		16.2	1.0
(G30-G31)	/	-	AL 155	-	16,2	1,0
FO	RNO MAXI/F	OUR MAXI/M	AXI OVEN/MAX	XI-BO/HORN(	O MAXI	
Natural Methane Gas (G20)	13,5	-	AL 285	-	27	25,0
Natural Methane Gas	13,5	-	AL 295	-	27	25,0
Liquid Gas LPG (G30-G31)	13,5	-	AL 190	-	19	39,0

## (Tabelle/Tableau/Table 42) (NL - CAT. $II_{2EK3B/P}$ )

## (Tabelle/Tableau/Table 43) (HU [2851371] EXCEPT) - CAT. II<sub>HS3B/P 30mbar</sub>)

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/ Zündflamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]
	BF	<u>RENNER/BRÛI</u>	LEUR/BURNER	C Ø 65	-	
Natural Methane Gas (G20)	6,2	2,1	170	100	35	11,0
Natural Methane Gas (G25.1)	5,5	1,6	190	100	35	7,0
Liquid Gas LPG (G30-G31)	5,4	1,4	110	55	21	18,0
	BF	RENNER/BRÛI	LEUR/BURNER	D Ø 95		
Natural Methane Gas (G20)	8,5	2,4	200	105	35	11,0
Natural Methane Gas (G25.1)	7,5	1,8	220	105	35	7,0
Liquid Gas LPG (G30-G31)	6,8	2,6	125	82	21	20,0
TUTTAPIASTRA	COUP DE FE	U/GAS SOLIE	D TOPS/GLÜPLA	ATTENHERDI	E/PLACA RAD	IANTE
Natural Methane Gas (G20)	11,5	3,6	240	Reg.	27,2	1,0
Natural Methane Gas (G25.1)	11,5	3,6	270	Reg.	27,2	1,0
Liquid Gas LPG (G30-G31)	11,5	3,6	170	100	16,2	3,0
FORNO /FOUR /OVEN /BO /HORNO						
Natural Methane Gas (G20)	7,50	-	AL 200	-	27,2	0
Natural Methane Gas (G25.1)	7,55	-	210R		27,2	3,0
Liquid Gas LPG (G30-G31)	7	-	AL 135	-	16,2	1,0

## (Tabelle/Tableau/Table 44) (HU [2851371 EXCEPT]) - CAT. II<sub>HS3B/P 50mbar</sub>)

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/ Zündflamme/ Piloto [N°]	Aria/Air/Luf t/Aire "x" [mm]
	BF	RENNER/BRU	LEUR/BURNER	<u>C Ø 65</u>	1	
Natural Methane Gas (G20)	6,2	2,1	170	100	35	11,0
Natural Methane Gas (G25.1)	5,5	1,6	190	100	35	7,0
Liquid Gas LPG (G30-G31)	5,4	1,7	100	55	21	14,0
	BF	RENNER/BRÛ	LEUR/BURNER	D Ø 95		
Natural Methane Gas (G20)	8,5	2,4	200	105	35	11,0
Natural Methane Gas (G25.1)	7,5	1,8	220	105	35	7,0
Liquid Gas LPG (G30-G31)	6,8	3,3	110	82	20	14,0
TUTTAPIASTRA	COUP DE FE	U/GAS SOLII	D TOPS/GLÜPLA	ATTENHERDI	E/PLACA RAD	IANTE
Natural Methane Gas (G20)	11,5	3,6	240	Reg.	27,2	1,0
Natural Methane Gas (G25.1)	11,5	3,6	270	Reg.	27,2	1,0
Liquid Gas LPG (G30-G31)	11,5	3,6	150	85	16,2	2,0
FORNO /FOUR /OVEN /BO /HORNO						
Natural Methane Gas (G20)	7,50	-	AL 200	-	27,2	0
Natural Methane Gas (G25.1)	7,55	-	210R		27,2	3,0
Liquid Gas LPG (G30-G31)	7	-	AL 135	-	16,2	1,0

Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/ Inyector [1/100 mm]	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/ Piloto [N°]	Aria/Air/Luft/ Aire "x" [mm]		
	B	<u>RENNER/BRŰ</u>	LEUR/BURNE	<u>R C Ø 65</u>				
Town Gas	5 5	16	345	100 TURN	70	8.0		
(G110)	5,5	1,0	545	1,5ROUND	70	0,0		
Natural Methane Gas	6.2	1.9	180	100	35	12.0		
(G20)		-,>	100	100		12,0		
Liquid Gas LPG	5,4	1,4	110	55	21	18.0		
(G30-G31)	- ,					- 7 -		
T. C.	B	<u>RENNER/BRU</u>	LEUR/BURNER	<u> </u>				
Town Gas	7.5	1,8	430	105 TURN	70	8.0		
(G110)	- 9-	7 -		2ROUND		- 7 -		
Natural Methane Gas	8,5	2,1	215	105	35	12.0		
(G20)	,	,				,		
Liquid Gas LPG	6,8	2,6	125	82	21	20,0		
(G30-G31)								
TUTTATASTKA/COUP DE FEU/GAS SOLID TOPS/GLUPLATTENHEKDE/PLACA RADIANTE								
(G110)	11,2	3,4	600	ROUND	45,2	0		
Natural Methane Gas								
(G20)	11,5	3,6	260	Reg.	27,2	1,0		
Liquid Gas LPG	11 5	2.6	170	100	16.0	2.0		
(G30-G31)	11,5	3,6	170	100	16,2	3,0		
FORNO /FOUR /OVEN /BO /HORNO								
Town Gas	C 40		AT 200	-	45.0	0 *		
(G110)	0,40	-	AL 380		45,2			
Natural Methane Gas	7.50		AL 200		27.2	0		
(G20)	7,50	-	AL 200	-	27,2	0		
Liquid Gas LPG	7.0		AL 125		16.2	1		
(G30-G31)	7,0	_	AL 125	_	10,2	1		
FC	DRNO MAXI/H	FOUR MAXI/N	IAXI OVEN/MA	XI-BO/HORN	O MAXI			
Town Gas								
(G110)								
Natural Methane Gas	13.5		AL 285		27	25.0		
(G20)	13,3	-	AL 203	-	21	23,0		
Liquid Gas LPG	13.5	-	AL 190	-	19	39.0		
(G30-G31)	13,3		AL 170		17 59,0	,.		

## (Tabelle/Tableau/Table 45) (DK - CAT. $III_{1a2H3B/P}$ )

	-	0	1	r		
Tipo gas/ Type gaz/ Gas Type/ Gasart	MAX [kW]	MIN [kW]	Ø Ugello/Gicleur/ Injector/Düse/	Ø By-pass [1/100 mm]	Pilota/Veilleu se/Pilot/Zünd flamme/	Aria/Air/Luf t/Aire "x"
Gus Type, Gusart	[[[, (, ()]]]	[[[[]]]]	Invector	[1/100 mm]	Piloto	[mm]
	BR	RENNER/RRÛ	LEUR/BURNER	C Ø 65		
Town Gas	DI					
(G110)	5,5	1,6	345	1.5ROUND	70	8,0
Town Gas				_,		
(G120)						
Natural Methane Gas			100			1.0.0
(G20)	6,2	1,9	180	100	35	12,0
Liquid Gas LPG	54	14	110	55	21	18.0
(G30-G31)	5,1		110		21	10,0
T C	BF	RENNER/BRU	LEUR/BURNER	DØ95		
Town Gas	7,5	1,8	430	105 TURN	70	8,0
(GII0) Team Cas				2ROUND		
Town Gas						
(G120)						
(G20)	8,5	2,1	215	105	35	12,0
Liquid Gas LPG (G30-G31)	6,8	2,6	125	82	21	20,0
TUTTAPIASTRA/COUP DE FEU/GAS SOLID TOPS/GLÜPLATTENHERDE/PLACA RADIANTE						
Town Gas	11,2	3,4	600	100 TURN 4	45,2	0
(G110) Town Gas				ROUND		
(G120)	11,2	3,7	520	ROUND	45,2	0
Natural Methane Gas	11,5	3,6	260	Reg.	27,2	1,0
(G20) Liquid Gas LPG				-		
(G30-G31)	11,5	3,6	170	100	16,2	3,0
	FORNO /FOUR /OVEN /BO /HORNO					
Town Gas	6.40	-	AL 380	-	45.2	0 *
(G110)	,				,	
Town Gas						
(G120)						
(G20)	7,50	-	AL 200	-	27,2	0
Liquid Gas LPG	7.0	_	AL 125	-	16.2	1
(G30-G31)					10,2	1
FO	RNO MAXI/F	OUR MAXI/M	AXI OVEN/MA	XI-BO/HORNO	) MAXI	
Town Gas						
(G110)						
Town Gas						
(G120)						
(G20)	13,5	-	AL 285	-	27	25,0
Liquid Gas LPG (G30-G31)	13,5	-	AL 190	-	19	39,0

## (Tabelle/Tableau/Table 46) (SE - CAT. III<sub>1ab2H3B/P</sub>)



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## **DESCRIPTION OF APPLIANCES**

#### Gas cooking range

Sturdy steel structure on four feet, thus enabling the height regulation in the version with cabinet. The outer finishing is made of stainless steel.

Each burner of the cooking range is provided with a safety gas cock, which enables the user to regulate the output from maximum to minimum. Safety is ensured by a thermocouple kept active by the flame of the pilot burner.

The burner, the Venturi tube, the gas rings and the grills are made of a fusion of cast iron.

The powered versions are provided, according to their dimensions, of one or 2 burners of a higher thermic power (type E).

#### Solid tops

Sturdy structure in steel on four feet, thus enabling the height regulation in the version with cabinet. The outer finishing is made of stainless steel.

It is provided with a safety gas cock, which enables the user to regulate the output from maximum to minimum. Safety is ensured by a thermocouple kept active by the flame of the pilot burner.

The solid top is made of thick cast iron with a central pad for burner inspection. The solid top is heated by means of a "pipe" burner of stainless steel, suitable for proper functioning at the high temperatures to which it is exposed.

#### Gas Oven and Maxi Oven

The cooking chamber is made of stainless steel and the grill-holders are made of steel. The oven floor is made of special, high-temperature resistant stainless steel. It is available as an optionan oven floor made of a fusion of cast-iron and it is strengthened by a series of ridges on both the top and bottom surfaces.

The removable grill is made of reinforced steel covered with a protective film. The insulation of the cooking chamber and of the door is ensured by a layer of high temperature resistant ceramic fibre.

The gas oven and maxi ovens are provided with a safety thermostatic gas valve, which enables the regulation of the temperature in a range from  $60^{\circ}$  C inclusive to  $300^{\circ}$  C inclusive. Safety is ensured by means of a thermocouple kept active by the flame of the pilot burner. The chamber is heated by means of a steel tubular burner covered by a protection, suitable for proper functioning at the high temperatures to which it is exposed.

#### Static electric 2/1 GN oven

The cooking chamber is made of stainless steel and the grill-holders are made of steel. The oven floor is made of special, high-temperature resistant stainless steel. It is available as an optional oven floor made of a fusion of cast-iron and it is strengthened by a series of ridges on both the top and bottom surfaces.

The removable grill is made of reinforced steel covered with a protective film. The insulation of the cooking chamber and of the door is ensured by a layer of high termperature resistant ceramic fibre. The static electric oven is provided with a thermostat, which enables the regulation of the temperature in a range from 90° C inclusive to 300° C inclusive, and with a selector for choosing the type of cooking: ceiling only, floor only or both. Safety is ensured by a manually activated thermostat.

The chamber is heated by means of covered elements placed under the bottom and above the diffusing plate of the ceiling.

#### Ventilated electric oven

The cooking chamber is made of stainless steel and the grill-holders are made of steel. The oven floor is made of special, high-temperature resistant stainless steel. It is available as an optional oven floor made of a fusion of cast-iron and it is strengthened by a series of ridges on both the top and bottom surfaces.

The removable grill is made of reinforced steel covered with a protective film. The insulation of the cooking chamber and of the door is ensured by a layer of high temperature resistant ceramic fibre.

The ventilated electric oven is provided with a thermostat, which enables the regulation of the temperature in a range from  $90^{\circ}$  C inclusive to  $300^{\circ}$  C inclusive, and with a selector for choosing the type of cooking: ceiling only, floor only or both, combining also the fire-fan moved by the shaft of an electric motor. The oven fan is composed of an impeller which is moved by the shaft of an electric motor. Safety is ensured by a manually activated thermostat.

The chamber is heated by means of covered elements placed under the bottom and above the diffusing plate of the ceil.

## REGULATIONS AND SUBSTITUTIONS FOR USING A GAS DIFFERENT FROM THE TYPE PROVIDED FOR

#### Functioning with a gas type different from the type provided for

In order to change to another gas type, it is necessary to substitute the nozzles of the main burners and of the pilot burner, following the instructions in the following paragraphs. The nozzle type to be installed can be found in tables BURNER FEATURES. The nozzles of the main burner, marked with their diameter in hundredths, and the nozzles of the pilot burner, marked with a number, are to be found in a transparent packet attached to the instruction booklet. If not included in the equipment, nozzles must be requested directly to the manufacturer. In the event that the nozzles are replaced, the responsibility for the functioning of the appliance lies entirely with the person who carried out the operation.

When the conversion is completed, check that the pipe joints are tight and that the ignition and functioning of both the pilot and the main burner – both at minimum and maximum – are correct. It may be advisable to check the output power.

Then, modify the technical sheet and place the sheet (provided as standard kit equipment) referring to the new gas type in the X position.

#### **Open rings**

#### Replacing the burner nozzle

In order to replace the burner nozzle, remove the pan support grill (1), the gas ring (2), the burner unit (3) and the drip pan (4). Then, unscrew the nozzle (5) from the nozzle holder (6), which





is to be found under the Venturi tube (7) with a spanner and replace it with the nozzle suitable for the

gas type to be used, as shown in tables BURNER FEATURES. Reassemble the nozzle, tightening it well, and regulate the primary air, as indicated in the next paragraph. Finally, place back all the components previously removed.

#### Regulating the burner primary air

After replacing the burner nozzle, it is necessary to regulate the primary air. Therefore, unloose the screw (8) that fixes the steel bushing (9); bring  $\mathbf{x}$  value to the correct measurement with reference to tables BURNER FEATURES; tighten up the screw (8) and check the accuracy of  $\mathbf{x}$  value.



#### Replacing the by-pass



In order to replace the by-pass, it is necessary to remove the knobs (1) and the control panel (2). Then, unscrew the by-pass (3) with a screwdriver and replace it with the by-pass suitable for the gas type to be used, as shown in tables BURNER FEATURES. Reassemble the by-pass and tighten it well. Finally, place back the control panel and the knobs.

#### Replacing the pilot burner nozzle

In order to replace the pilot burner nozzle, remove the pan support grill, the gas ring, the

burner unit and the drip pan. Then, screw off the closure cap (1) with a spanner; screw off the nozzle with a screwdriver (2) and replace it with the nozzle suitable for the gas type to be used, as shown in tables BURNER FEATURES. Reassemble the nozzle and tighten it well. Reassemble the closure cap (1) and tighten it well. Finally, place back all the components previously removed.



#### Oven



Replacing the burner nozzle

In order to replace the burner nozzle, remove the front panel (1) under the oven door. Then, unloosen the screw that secures the regulation of the primary air (3) and open them completely. With the aid of another spanner unscrew the nozzle (5) placed in the nozzle holder (4) and replace it with the

nozzle suitable for the gas type to be used, as shown in tables BURNER FEATURES. Assemble the new nozzle and tighten it well; then, regulate the primary air, as indicated in the next paragraph. Finally, place back the front panel.

#### Regulating the burner primary air

After replacing the burner nozzle, it is necessary to regulate the primary air. Therefore, unloose the screw (2); bring the distance between the bushing (3) and the burner stirrup (6) to the correct measurement ( $\mathbf{x}$  value) with reference to tables BURNER FEATURES. Then, tighten up the screw and check the accuracy of  $\mathbf{x}$  value.



#### Replacing the pilot burner nozzle



In order to replace the burner nozzle, remove the front panel under the oven door. Then, unscrew the screws (1) that fix the pilot support (2) with a screwdriver and remove them. Unscrew the nut (3) that fixes the thermocouple (4) to the nozzle holder and slide it off; unscrew the fitting (5) that fixes the gas supply pipe to the pilot (6) and take out the nozzle (7). Substitute the nozzle with one suitable for the gas type to be used, as shown in tables BURNER FEATURES. Then, assemble the new nozzle; place back the pipe and tighten the fitting fully. Put back the pilot support; fix it and place back the front panel.

#### Maxi Oven





#### Replacing the burner nozzle

In order to replace the burner nozzle, open the oven door and remove the oven bottom (1). Then, remove the screws that secure the protection of the Venturi tube; unloose the screw that secures the regulation of the primary air (3) and open it completely. With the aid of another spanner unscrew the nozzle (5) placed in the nozzle holder (4) and replace it with the nozzle suitable for the gas type to be used, as shown in tables BURNER FEATURES. Assemble the new nozzle and tighten it well; then, regulate the primary air, as indicated in the next paragraph. Finally, place back the coverage of the Venturi tube and the oven bottom.

#### Regulating the burner primary air

After replacing the burner nozzle, it is necessary to regulate the primary air. Therefore, unloose the screw; bring the distance between the bushing and the burner stirrup to the correct measurement ( $\mathbf{x}$  value) with reference to tables BURNER FEATURES. Then, tighten up the screw and check the accuracy of  $\mathbf{x}$  value.

#### Replacing the pilot burner nozzle







In order to replace the pilot burner nozzle, open the oven door and remove the cast iron bottom (1 and 2); unscrew the screws and remove the protection cover of the Venturi tube (3). Then, extract the drilled protection (4); unscrew the nut (6) and extract the tube of the pilot burner (5). Remove the biconic screw (7) and the pilot burner nozzle (8). Replace it with the nozzle suitable for the gas type to be used. Put the new nozzle into the biconic screw and assemble it; put back the pipe of the pilot burner and tighten the nut

well. Put back the drilled protection, the stirrup and the cast iron bottom.

### SUBSTITUTING COMPONENTS

## ATTENTION! Before carrying out any substitutions, make sure that the appliance is disconnected from the electric mains and that the gas cut-off valve is closed.

#### Safety cock in open rings

In order to replace the safety cock, remove the knobs and the control panel; then, unscrew in sequence the pipe union of the piping which goes to the burner, the thermocouple and finally, the pipe union of the ramp. Replace the cock.

#### Thermocouple of open rings

In order to replace the thermocouple of the open-flame gas rings, remove the knobs and the control panel, the pan support grill, the gas ring, the burner unit and the drip pan. Unscrew the fitting of the thermocouple on the cock, unscrew the fixing element of the thermocouple and replace the part.

#### Safety thermostat of the oven

In order to replace the oven thermostat, remove the knobs and the control panel of the oven; then, unscrew in sequence the pipe union of the piping which goes to the burner, the thermocouple and finally, the pipe union of the ramp. Replace the thermostat.

#### Electric components of the electric oven

In order to replace the switch and the thermostat of the electric oven, unscrew the fixing screws of the control board; remove the control board; disconnect the electric cables of the component and replace the component. Then, connect the electric cables following the instructions of the wiring diagram.

#### Heating elements of the electric oven

In order to replace the oven heating elements, extract the oven grill, the floor (1), and the grill holders. Then, unscrew the fixing screws (2) of the heating element to be substituted (3); remove the heating element from the support from the other side; remove it, including the wiring, and disconnect it. Then, connect the electric cables following the instructions of the wiring diagram.



Problem	Possible solution
The gas burner does not light on	<ul> <li>Check that gas inlet pressure is the same as that shown in table TYPE OF GAS</li> <li>Check that the nozzle of the burner is not blocked</li> <li>Check that the igniter electrode, is well fixed and connected</li> <li>Check that the igniter electrode is intact.</li> <li>Check that the igniter cable is intact.</li> <li>Check that the piezo is intact and functions correctly</li> <li>Check the gas value or gas cock</li> </ul>
The pilot burner lights off after loosening the igniter knob	<ul> <li>Check that gas valve of gas cock.</li> <li>Check that gas inlet pressure is the same as that shown in table TYPE OF GAS</li> <li>Check that the flame of the pilot burner laps the thermocouple; if this is not the case, adjust the pilot burner through the regulating screw on the valve</li> <li>Press the gas knob in its correct position</li> <li>Change the thermocouple</li> <li>Check if the valve/cock magnetic group is rusted</li> <li>Check the gas valve or gas cock.</li> </ul>

#### Some problems and their possible solutions

	• Check that gas inlet pressure is the same as that shown in table TYPE OF GAS
The cilet human store on but the main	• Check that the gas nozzles are not blocked
The phot burner stays on but the main	• Check that the burner holes are not blocked
burner does not light on	• Check that the gas pipe is not blocked
	• Check that the nozzles installed are in accordance to
	tables BURNER FEATURES.
	• Check the gas valve or gas cock.
High minimum	• Check that gas inlet pressure is the same as that shown in table TYPES OF GAS
	• Check the by-pass
	• Check the gas valve or gas cock.
	• Check that gas inlet pressure is the same as that shown in table TYPES OF GAS
Slow and/or insufficient heat	• Check that the nozzles installed are in accordance to
	tables BURNER FEATURES.
	• Check the gas valve or gas cock.
	• Check that the minimum screws (by-pass) are the same as that shown in tables BURNER FEATURES.
Temperature not right	• Check the position of the thermostat in the cooking
	chamber.
	• Check the gas valve or gas cock.
Nahaat	• Check the power supply
	• Check the condition of the heating element
(electric models)	Check the switch/thermostat
No indicator light	• Check the power supply
(electric models)	Check the light bulb
	• Check the setting of the energy regulator and/or
Slow and/or insufficient heat	switch and/or thermostat
Slow and/or insufficient near	• Check the condition of the heating elements and/or solid
(electric models)	tops
	• Check the quantity of food to be cooked

## **INSTRUCTIONS FOR USE**

- The appliance is intended to be used EXCLUSIVELY with containers that are suitable for contact with food and resistant to heat), any other use is not considered appropriate.
- When cooking, avoid placing pots and pans and/or crockery on the hotplate that are partially resting on the stainless steel part of the hob, or the steel may overheat.

#### Ventilated electric oven

Before turning on the electric oven, it is necessary to select the desidered type of cooking in the following way:

- Turn the knob (1) into the desired position;



Position no.	Use
	Plate off
४	Fan and total heating
	Total heating
४	Fan and baking from the bottom
	Baking from the bottom
४	Fan and gratin
	Cooking au gratin

- Regulate the cooking temperature desired with the thermostat (2), the two lights come on. The green light stays on to indicate the presence of electrical tension, while the orange one goes off as soon as the oven reaches the temperature.
- In order to turn off the oven, turn one of the two knobs back into position **0**.

#### **Open rings**

In order to light the burners of the open rings, proceed in the following way:

- Turn the knob (1) from off  $\bullet$  position to the  $\star$  position
- Push down to the bottom;
- Light the pilot burner using a match or another lighter suitable for this use;
- Once lit, keep the knob pressed down until the thermocouple heats up, keeping the pilot lit;
- Light the main burner in the desired position, going from maximum **b** to minimum **b**

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In order to put out the main burner, the knob has to be turned to the right into the on  $\star$  position; as for putting out also the pilot, turn the knob again into the off position  $\bullet$ 

#### Oven and maxi oven

In order to light the oven burner, proceed in the following way:

- Open the oven door and turn the knob (1) from the off position
  - into the position  $\star$
- Press down the button;
- Push the button of the piezoelectric lighter (2) \* to light the pilot burner;
- Keep the knob pressed down until the thermocouple heats up, keeping the pilot lit; this can be checked through the slit in the control panel;
- Light the main burner, positioning the knob in one of the possible positions. Choose the position most suited to the desired type of cooking, considering that every position corresponds indicatively to the temperatures shown below:

Position (N°)	1	2	3	4	5	6	7
Temperature (°C)	60	100	140	180	220	260	300

In order to put out the main burner, the knob has to be turned to the right into the on position  $\star$ ; as for putting out also the pilot, turn the knob again into the off position  $\bullet$ 

#### Solid top

In order to light the burner of the all solid top, proceed in the following way:

- Turn the knob (1) from the off position  $\bullet$  into the position  $\bigstar$
- Push down to the bottom;
- Press the button of the piezoelectric lighter (2) \* to light the pilot burner;
- Keep the knob pressed down until the thermocouple heats uo, keeping the pilot lit;
- Light the main burner in the desired, going from maximum **b** to minimum **b**.

In order to put out the main burner, the knob has to be turned to the right into the position  $\star$ ;

as for putting out also the pilot, turn the knob again, into the off position  $\bullet$ 

#### **Electric oven**

Before turning on the electric oven, it is necessary to select the desired type of cooking in the following way:

- Turn the knob (1) into the desired position: full heating =, cooking from the bottom =, au gratin =;
- Regulate the desired cooking temperature with the thermostat (2), the two lights come on. The green light stays on to indicate the





presence of electrical tension, while the orange one goes off as soon as the oven reaches the temperature.

- In order to turn off the oven, turn one of the two knobs back into position **0**.

## CARE AND MAINTENANCE OF THE APPLIANCE

#### Cleaning

ATTENTION! Before doing any cleaning, make sure that the appliance is disconnected from the electric mains and that the gas cut-off valve is closed. During cleaning operations, avoid using direct or high pressure sprays of water on the appliance. Cleaning has to be done when the appliance is cold.

Steel parts can be cleaned with warm water and neutral detergent, using a cloth. The detergent should be suitable for cleaning stainless steel and should not contain abrasive or corrosive substances. Do not use ordinary steel wool or anything similar, as this can deposit rust-forming iron particles, and avoid contact of iron objects with the stainless steel. It is also unadvisable to use sandpaper or emery paper. Pumice powder should only be used for heavily encrusted dirt; however, a synthetic abrasive sponge or stainless steel wool used in the direction of the glazed finish would be preferable. After washing, dry the appliance with a soft cloth.

When cleaning, abrasive powders of any type, chlorine-based detergents and bleach should all be avoided. Also avoid pouring cold liquids on appliances while they are hot, or cracks could form which could cause the appliance to become deformed or broken.

The stainless steel should not be exposed to prolonged contact with concentrated acidic substances (vinegar, condiments, spice mixtures, concentrated kitchen salt...) as these can create chemical and physical conditions that damage the passivation of the steel; it is therefore advisable to remove these substances using clean water.

In order to clean the open rings, remove the pan support grill, the drip pan, the gas ring, and the burner unit. Clean them with warm water and neutral detergent and using a suitable utensil; rinse and dry them well. Put back all the components, fitting them properly into their place.

In order to clean the oven, remove the wire grill, the bottom, the top diffuser (to be found in electric ovens), and the grill holders. Clean all these components with warm water and neutral detergent and using a suitable utensil; rinse and dry them well. Put back all the components, fitting them properly into their place.

If the appliance is out of use for a long time, it is advisable to turn off the gas tap. Then, disconnect the main electricity supply, wipe all stainless steel surfaces with a cloth soaked in Vaseline oil so to provide it with a protective film, and air the rooms now and again.

**ATTENTION**: Never use substances, detergents and other solutions containing chlorine or its by-products.

In order to remove any possible scale-marks, do not use products containing salt or sulphuric acid; suitable products are to be found in the market or, alternatively, a solution diluted in acetic acid can be used.

While cleaning the appliance, do not use inflammable liquids.

#### Abnormal functioning

If for any reason, the appliance does not start or stops working during use, check that the energy supply and the control knobs are set correctly; if all is regular, call customer service.