

CE

Bartscher

GAS-NUDELKOCHER

GAS PASTA COOKER

CUISEUR À PÂTES À GAZ

CUOCIPASTA A GAS

COCEDOR DE PASTA GAS

MÁQUINA DE MACARRÃO, GAS

GAZ PASTAKOKER

URZĄDZENIE DO GOTOWANIA

PRODUKTÓW MĄCZNYCH, GAZOWE

DE

GB

FR

IT

ES

PT

NL

PL

2953031 / CPG91M01



INSTALLATIONS-, BEDIENUNGS-
UND WARTUNGSANWEISUNGEN

INSTALLATION, OPERATING
AND MAINTENANCE INSTRUCTIONS

MANUEL D'INSTALLATION,
D'UTILISATION ET D'ENTRETIEN

MANUALE DI INSTALLAZIONE,
USO E MANUTENZIONE

MANUAL DE INSTALACIÓN,
USO Y MANTENIMIENTO

MANUAL DE INSTALAÇÃO,
UTILIZAÇÃO E MANUTENÇÃO

HANDLEIDING VOOR INSTALLATIE,
GEBRUIK EN ONDERHOUD

WSKAZÓWKI DOTYCZĄCE INSTALACJI,
UŻYTKOWANIA I KONSERWACJI



Rev.-Nr.: 01-2017

DE TECHNISCHE ÄNDERUNGEN VORBEHALTEN!

GB TECHNICAL CHANGES RESERVED!

FR SOUS RÉSERVE DE MODIFICATIONS TECHNIQUES !

IT CI RISERVIAMO LA POSSIBILITÀ DI INTRODURRE MODIFICHE TECNICHE!

ES ¡SE RESERVA EL DERECHO A INTRODUCIR MODIFICACIONES TÉCNICAS!

PT SUJEITO A ALTERAÇÕES TÉCNICAS!

NL TECHNISCHE WIJZIGINGEN VOORBEHOUDEN!

PL WPROWADZANIE ZMIAN TECHNICZNYCH ZASTRZEŻONE!

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3. SAFETY



Read carefully the guidelines and instructions in the instruction manual before you use the appliance.

The instruction manual contains general information on how to safely use and maintain the appliance.

Retain the manual for future reference.

The manufacturer took extra care when designing and manufacturing to prevent any safety or health hazard to the personnel operating the appliance.

Please read carefully the guidelines in the instruction manual and instructions placed directly onto the appliance. Above all, observe all the safety instructions.

Do not intervene in or remove the protective appliances installed in the appliance. Non-compliance may lead to severe safety and health hazard against people. We recommend to perform a few tests to know the layout and main functions of the control panel, particularly those to switch the appliance on and off.

The appliance is intended only for the use it has been designed for and any other use is considered as the use not in compliance with the intended use.

The manufacturer is not liable for material damage or damage to person caused by misapplication or incorrect application of the appliance.

Any maintenance work that requires special technical licence or special skills may be performed by qualified personnel only.

To provide hygiene and protect foods from dirt, all the elements that have direct or indirect contact with the foods and all border areas must be thoroughly cleaned. Use only the cleaning agents intended for use in contact with food and avoid using flammable agents or harmful to health.



After each use make sure that the burner is switched off, the operational elements are deactivated, and the gas supply hoses are disconnected.

When the device will not be used for a longer time not only disconnect all gas supply hoses, but also thoroughly clean all internal and external elements of the device.



You must not clean the appliance with the direct stream of water.

4. GENERAL INFORMATION AND WARNINGS

4.1. General guidelines

The manual has been edited by the manufacturer to provide the authorized personnel with the information necessary to work with the appliance. We recommend the intended readers to read the manual carefully and comply with the information. By reading the information contained in the manual, hazards against people health and safety may be prevented.

Retain the manual in an easily available place throughout the time of use of the appliance to have access and refer to the required information at any time.

Special symbols, described below, have been used to stress important information or draw attention to essential data:

Caution - warning



Indicate important safety instructions. You should acquire the proper conduct to prevent hazard against people health and safety or not to cause any damage.

Important

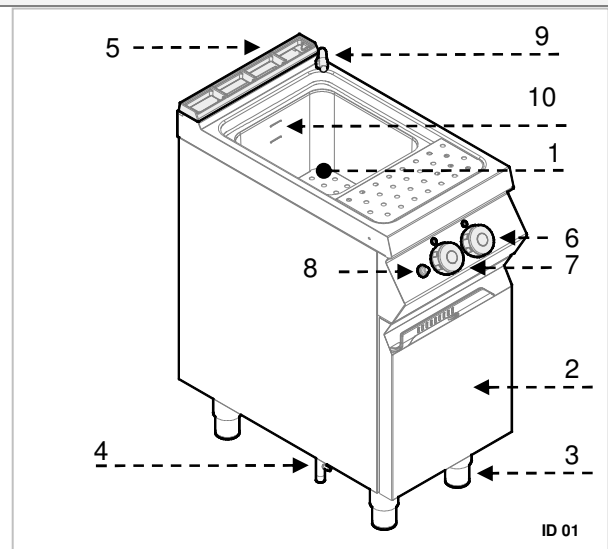


Indicate essentials technical data that you cannot ignore.

4.2. Description of the appliance

This appliance, called pasta cooker, has been designed and manufactured for professional gastronomy for cooking flour food products in water.

- 1) Container
- 2) Door
- 3) Feet of adjustable height
- 4) Gas connection
- 5) Extractor: Extraction of combustion gases
- 6) Water valve: Fills and adjusts water amount in the container.
- 7) Power control knob: adjusts burner power (min - max)
- 8) Burner ignition: piezoelectric burner ignition
- 9) Water inlet: fills container with water:
- 10) Minimum and maximum water level in the container.



4.3. Protection appliances

The appliance is equipped with the protection system. The arrangement of protection appliances is presented on the drawing.

- A) Gas cut-off valve:** to open and close the gas line.
- B) Safety thermocouple:** cuts off the gas supply if the flame goes out.
- C) Safety thermostat:** cuts off gas supply when there is no water.

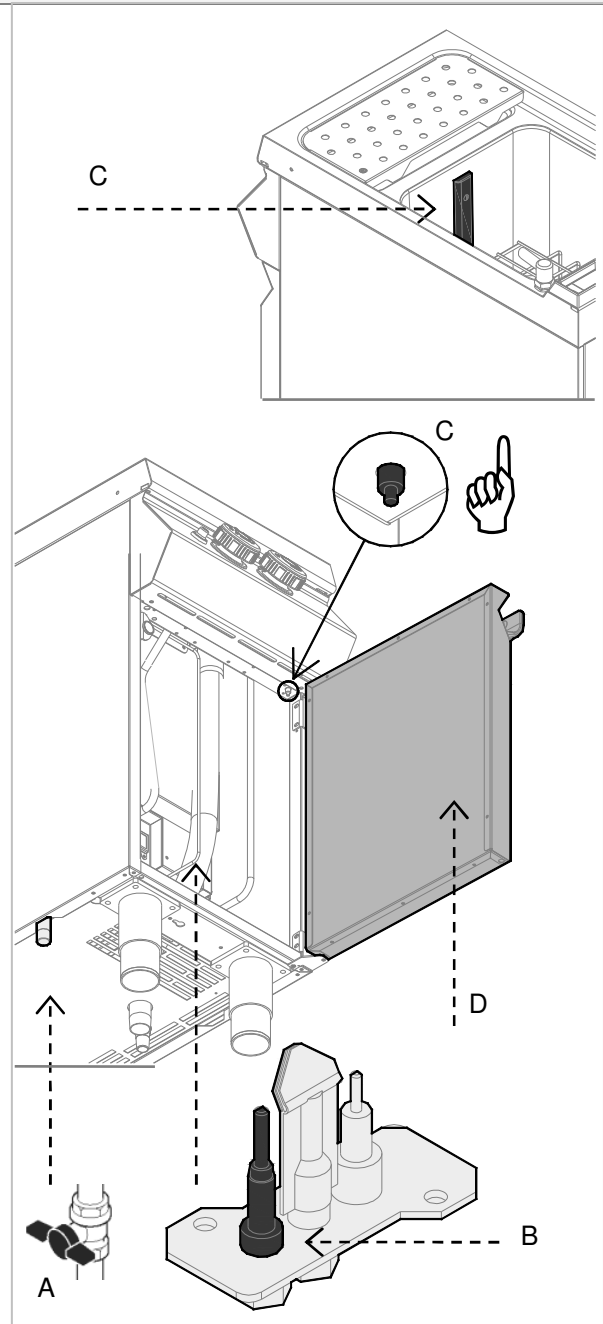


Check every day that the protection appliances are mounted correctly and operational.

After releasing of the safety thermostat restore the initial settings of the appliance.

1. Wait for the unit to cool.
2. Open the door (**D**).
3. Press the safety thermostat button (**B**) to reactivate the gas supply.
4. Close the door (**D**).

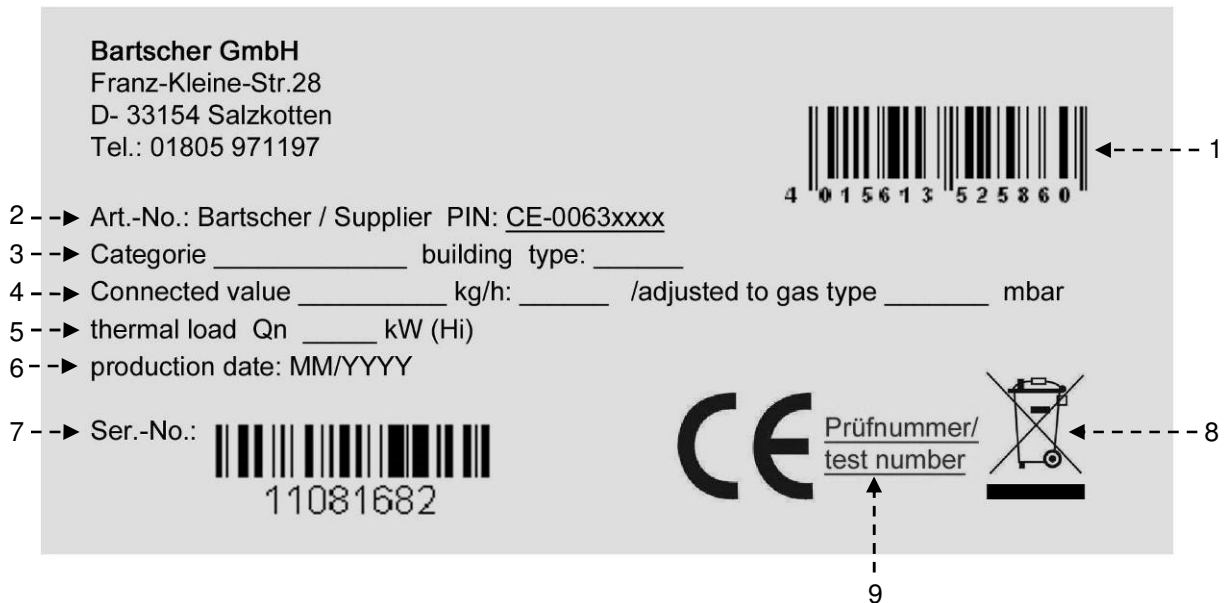
i After releasing of the safety thermostat press button (**C**).



4.4. Rating plate

The rating plate indicated in the drawing is mounted directly onto the appliance. There are all guidelines and information on the plate required for safe use.

- 1) EAN number
- 2) Code no./ Model no. / CE certificate no.
- 3) Category of appliance / type of design
- 4) Connected value / gas consumption / adjusted to gas type
- 5) Thermal load
- 6) Production date
- 7) Series no.
- 8) WEEE symbol
- 9) CE Declaration of Conformity



4.5. Replacement of components (service technician)



Before exchange of the component switch on all the existing protection appliances.

First of all, switch off the gas valve and prevent access to the appliance, which in the case of activation may lead to unexpected situations endangering the safety and health of people.

If necessary, exchange the used components to the original spare parts.



We are not liable for personal injury or damage to the components that arise due to application of other spare parts than original or intervention into the appliance without the manufacturer's consent that may have altered the safety requirements.

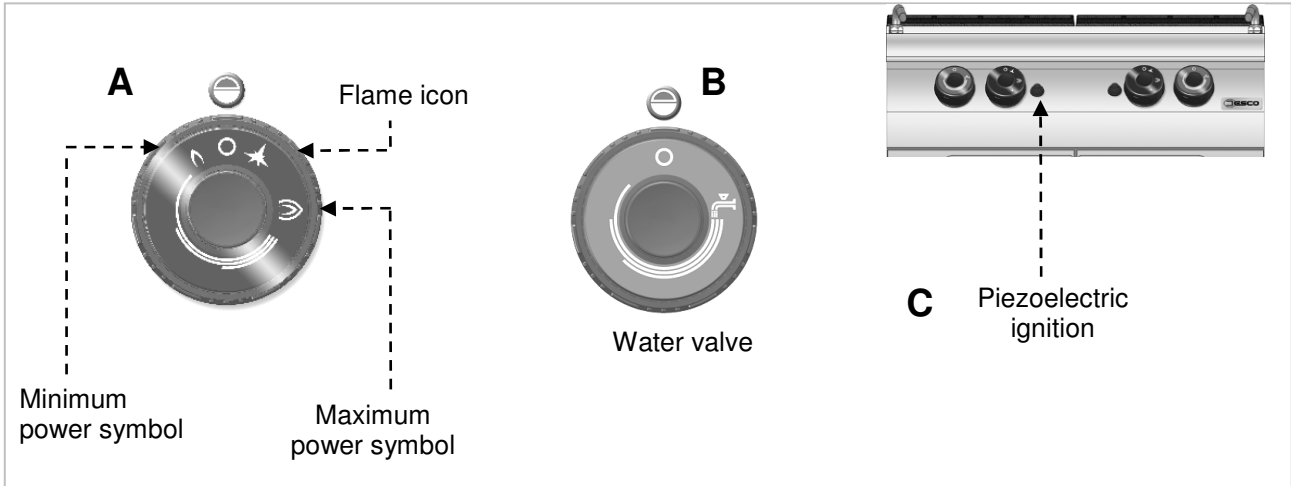
5. USE AND OPERATION

5.1. Description of the controls .

The elements controlling the essential functions are located on the control panel of the appliance.

- A) **Burner control knob:** for igniting, putting out, and adjusting the main burner.
- B) Water valve: for filling the tank.

- C) Piezoelectric ignition: for starting the igniting flame of the burner.



5.2. Burner ignition

IGNITION

- A) Press the burner control knob and rotate it counter clockwise (position 1); at the same time press button B to start the igniting flame.
- B) Hold the control knob B pressed for approx. 10 seconds in order to heat up

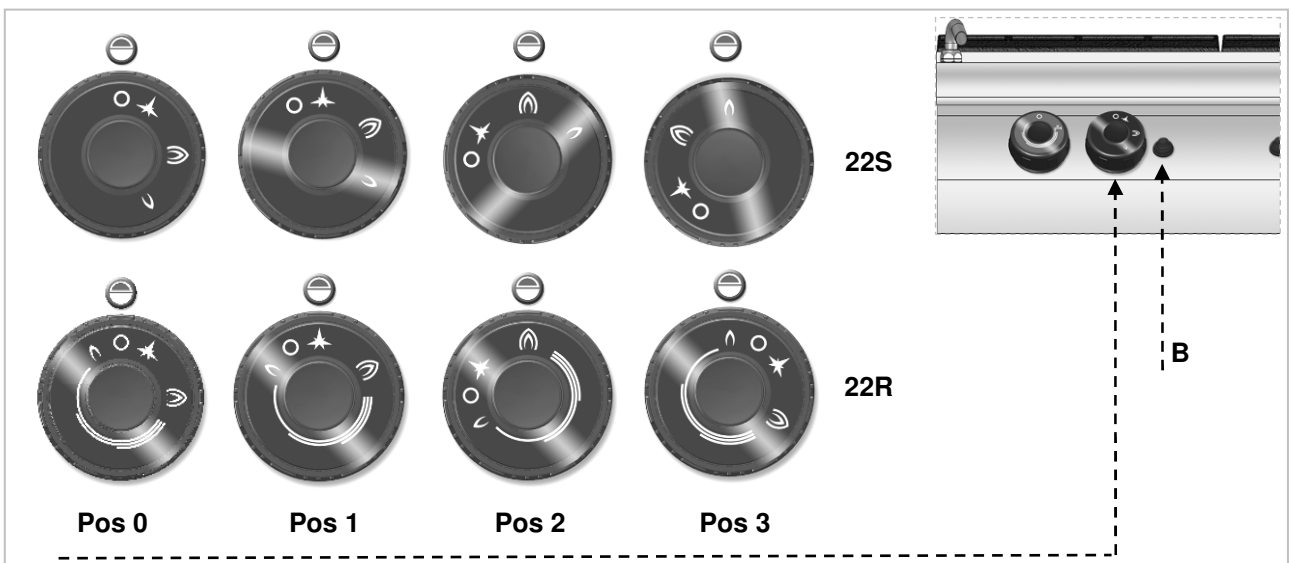
the thermal element; then release the controller.

- C) To ignite the burner rotate the control knob clockwise (position 2).
- D) Set the burner power (position 3).

SWITCHING OFF

- A) To switch off the burner rotate the control knob clockwise (position 1); the igniting flame is still on.

- B) To switch off the igniting flame rotate the control knob clockwise (position 0).




5.3. Filling the tank


Rotate the water valve to fill the tank to the required level. After reaching the maximum level the burner may be ignited.

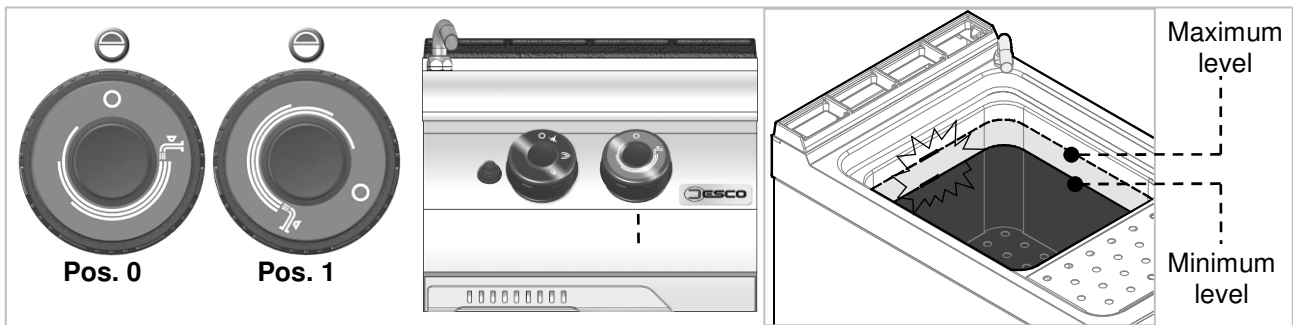
After filling close the water valve to avoid dangerous overfilling.

When water level drops below minimum open the water valve again.

The appliance may be connected to hot water supply to reduce the heating time (max. 60°C).

 When the water level drops below the basket bottom, the safety thermostat may trip: Fill the tank at least to the minimum level and reignite the burner.

 **Avoid using the appliance with the tank filled below the marked minimum level.**



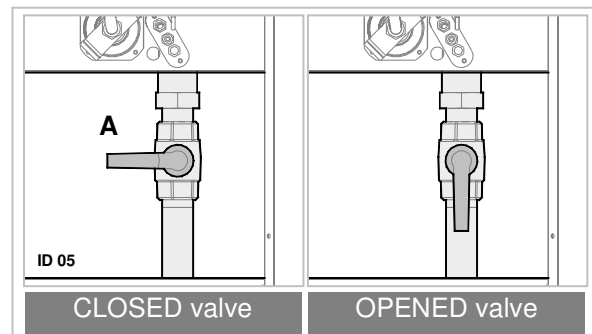
5.4. Draining the container

Water may be drained with use of appropriate container resistant to temperature of min. 100°C.

To drain the tank rotate the drain valve **A** down.



Before filling up the container check that the outlet valve **A is closed.**



5.5. Guidelines on how to use

When the appliance will not be used for a longer time, follow the instructions below:

1. Close the gas cut-off valve.
2. Thoroughly clean the appliance and adjacent surfaces.
3. Apply the food grade vaseline on the stainless steel surfaces.
4. Perform all maintenance works.
5. Leave the appliance uncovered, with opened cooking chambers.



Always empty the containers after use.

To ensure correct use of the appliance follow the guidelines below:

- Use only accessories provided by the manufacturer;
- Use baskets in the correct way;
- Before filling the tank check if the drain valve is closed;
- Make sure that the water level is above the minimum level marked in the tank.



Never use the appliance without water in the tank. It may cause total damage of the appliance.

6. CLEANING AND MAINTENANCE

6.1. Guidelines on cleaning and maintenance



Before you start maintenance works, turn on all the mounted protective appliances.

First of all, close the gas valve and prevent access to the appliance, which in the case of activation may lead to unexpected situations endangering the safety and health of people.

6.2. Proper maintenance

Proper maintenance includes daily cleaning of all components which have contact with food products, and regular maintenance of the burner, nozzle and exhaust pipes.

Thorough maintenance allows for obtaining the best results, assures longer life of the appliance, and keeping constant level of the safety requirements.

Never direct the water stream or high pressure jet towards the appliance.

To clean the stainless steel, do not use iron wool or iron brush as they may leave iron particles on the surface that form rust in result of oxidation. Use the wooden or plastic spatula, or soft cleaning sponge to remove the dried remains.

When the appliance will not be used for a longer time, use cloth soaked in food grade vaseline to apply the protective layer on all stainless steel surfaces and ventilate the room periodically.



Do not use any clearing agents that contain substances hazardous or harmful to health (solvents, petrol. etc.).




Regularly instruct the specialist personnel to perform the following maintenance works:

- Installation pressure and tightness control;
- Thermocouples functionality control;
- Control of operation of the extractor and possible cleaning;
- Inspection and possible lubrication of gas valves.
- Control of correct operation of safety barostat.

7. TROUBLESHOOTING

The information below is provided to recognize and repair any failures that may occur when operating the appliance.

Some of the failures can be repaired by the user, others require thorough specialist knowledge. Such problems may be solved exclusively by the qualified personnel.

Problem	Cause	Solution
Gas smell.	The smell is sometimes released when extinguishing the flame.	Close the gas cut-off valve and ventilate the room.
The ignition flame does not start.	The spark ignition does not work.	Check operation of ignition appliances. Ignite the flame manually.
	Air in the pipes in connection with the long downtime.	 Contact the service company.
The igniting flame continuously goes out.	The thermal element is not sufficiently hot.	Extend the ignition process.
Yellow flame.	The burner is contaminated or moist.	Clean the burner and leave for drying.  When problem persists contact the service company.
It is difficult to rotate the burner control knob.	Damaged valve.	 Contact the service company.

8. INSTALLATION

8.1. Packaging and unpacking

During unloading and when installing the appliance follow the information from the manufacturer placed directly on the packaging and in this manual.

To lift and transport the product plan to use a fork lift or stacker, and pay attention to even weight distribution to avoid a risk of tilting of the packaging (avoid excessive incline!).



While using the elevator pay attention to the gas supply hoses and position of feet.

The packaging consists of the carton packaging and wooden pallet. There are symbols printed on the carton packaging that according to the international agreements inform about the regulations to follow when loading and unloading, transporting and storing the appliance.



When collecting the goods check if the packaging is complete and has not been damaged during transport.

Any damage should be immediately reported to the shipping company.

Unpack the appliance as soon as possible to check if the appliance is not damaged.

Do not use a sharp object to cut the carton box. It may damage the stainless steel inside the box.

Remove the carton packaging from bottom to top.

When unpacked check if the appliance is according to the order.

In case of any difference inform the sales agent immediately.



Do not store the packaging materials (nylon bags, polystyrene foam, clips ...) in the reach of children!

Remove the protective PVC layer from the out and inner surfaces. If possible, do not use any metal tools.

8.2. Installation (service technician)

All the stages of the installation must be carefully planned.

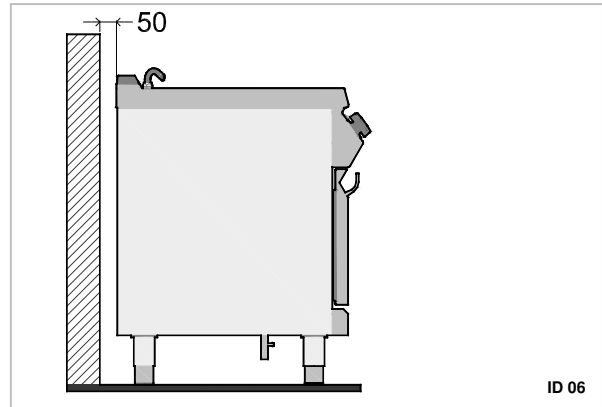
The location should be equipped with all supply connections and production waste outlet. The location should also be properly lit and comply with all hygiene and sanitary requirements according to the binding regulations.

The appliance should be installed with the minimum 5 cm clearance from the wall, if the wall is not resistant to the minimum temperature of 150 °C.

Locate the appliance in the horizontal position by adjusting the single feet.



To ensure the correct operation of the appliance, the appliance must be installed and operated in the thoroughly ventilated room only.



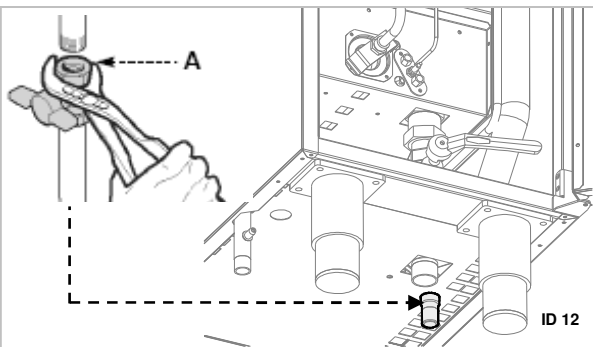
Internal installation of the gas supply and the rooms in which the appliance is housed, must comply with the local regulations applicable in the country in which the appliance is used (Regulation of 12 June 96 and UNI-CIG 87/23).

In order to ensure the proper gas burning in the burners the required volume of air, i.e. approx. 2 cubic meters per hour for every kW of installed power, must be supplied.

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8.3. Water connection (service technician)

The installation is performed by connecting the connection pipe of the appliance to the water network pipe. Install the cut-off valve (A) on the connection to stop the water supply when required. Install appropriate filters after that valve.



Connect potable water to the appliance. Limit values for the potable water specified by the European Union are listed in the table.

Description	Value
Pressure	150-300 kPA
	1.5-3 bar
pH	6.5-8
Hardness	8-15°F
	(80-150 ppm CaCO ₃)
Minerals	<1500 mg/l
Iron	< 0.2 mg/l
Manganese	<0.05 mg/l
Chlorine	<0.25 mg/l
Sulphur	<0.25 mg/l

8.4. Gas connection (service technician)

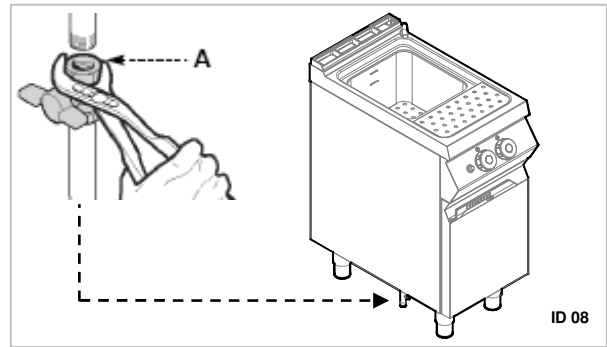
A gas connection must be performed in compliance with the applicable regulations.

Before connecting the appliance, check the technical data, type of gas, working pressure and flow rate which are provided on the rating plate.

The installation is performed by connecting the connection pipe of the appliance with a pipe of the gas distribution network. A shut-off valve must be installed on the connection to shut the gas supply off if necessary.

If there are significant pressure differences in the gas supply installation, it is recommended to install a pressure regulator.

After the installation, check the gas connection for tightness.



When looking for gas leaks do not use the open flame!

8.5. Extraction of fumes (service technician)

Installation of the type "A" appliances does not envisage connection to the fume exhaust system, but to the appropriate extraction hood which discharges the fumes to outside.

Installation under the extraction hood (A)

Place the appliance under the extraction hood (1) and attach to the appliance connection a pipe of the size as shown on the figures.

The end of the fume extraction pipe should be located at least 1.8m above the floor.



The appliance's gas supply should be subordinated to the exhaust system: Blocking of the fan must shut the gas supply off.



The fan must switch on automatically when the gas valve is open.

8.6. Installation of the appliance in a line

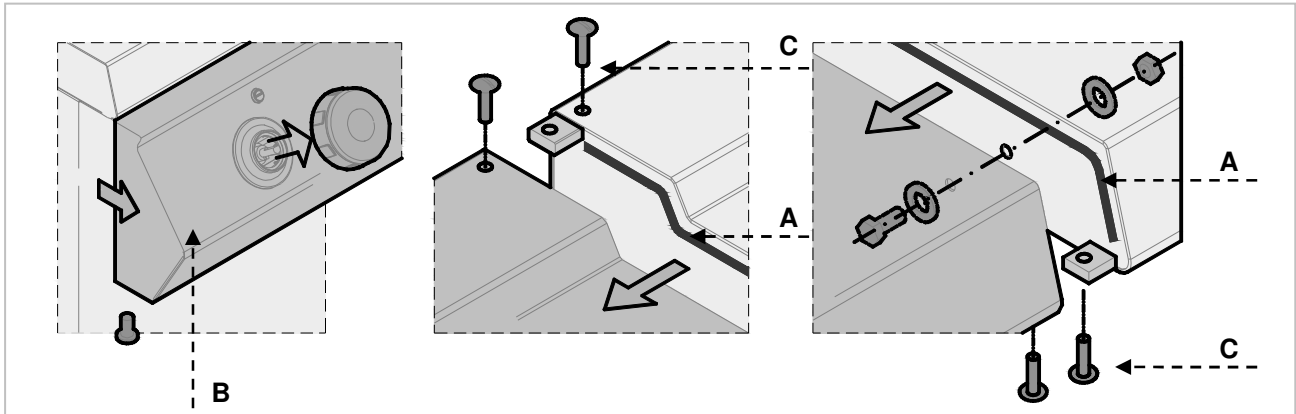
To fix the appliance in a line (neighbouring) follow the steps:

Dismantle the control panel, and remove the cast iron frame from the chimney if necessary.

Apply the sealing tape (A) onto the joining sides.

Place the appliances next to each other and in a horizontal position (by adjusting the feet).

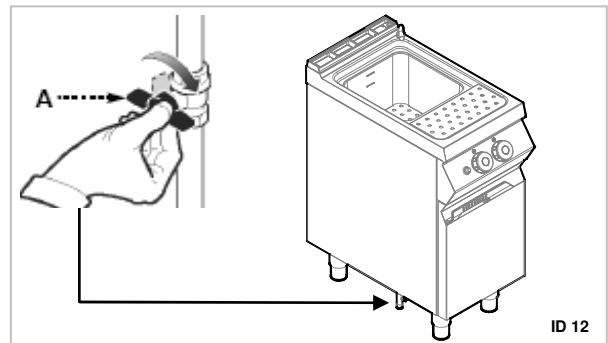
Connect the appliances with the joining elements.



8.7. Gas supply (service technician)

The appliance has been checked by the manufacturer for the type of gas shown on the rating plate. If a different type of gas is used, follow these guidelines.

1. Close the gas valve (A)
2. Replace the burner nozzle (see relevant chapter)
3. Replace the nozzle of the ignition flame (see relevant chapter)
4. Set a minimum value on the burner gas valve (see relevant chapter)
5. If necessary, check the air supply.
6. Remove the sticker from the rating plate and apply a new sticker which includes the used gas type (item 4 of the rating plate).



8.8. Inspection (service technician)

Before starting the appliance the installation check-up should be run to evaluate the working conditions of every single component and recognize any errors.

It is recommended to run the following check-ups:

1. Open the gas valve and check the tightness of connections;
2. Check whether the igniter starts and burns properly.
3. Check and adjust, if necessary, the gas pressure and flow rate in Max and Min positions (see chapter)
4. Check whether the safety thermostat operates properly.
5. Check gas connection for gas leaks.

9. SETTINGS



Before setting the appliance, first of all switch on all the protection appliances.

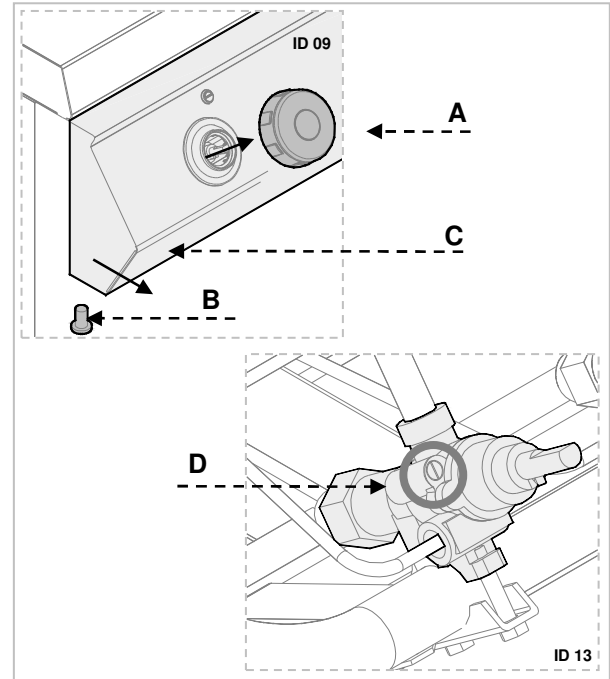
In particular deactivate the gas valve and prevent access to the appliance, which in the case of activation may lead to unexpected situations endangering the safety and health of people.

9.1. Minimum setting of burner valve (service technician)

These settings are required only if the connected type of gas differs from the checked gas, after connecting to the gas supply. Before performing this setting, check whether the gas pressure is compliant with the value of nominal pressure (see table).

Follow the instructions below.

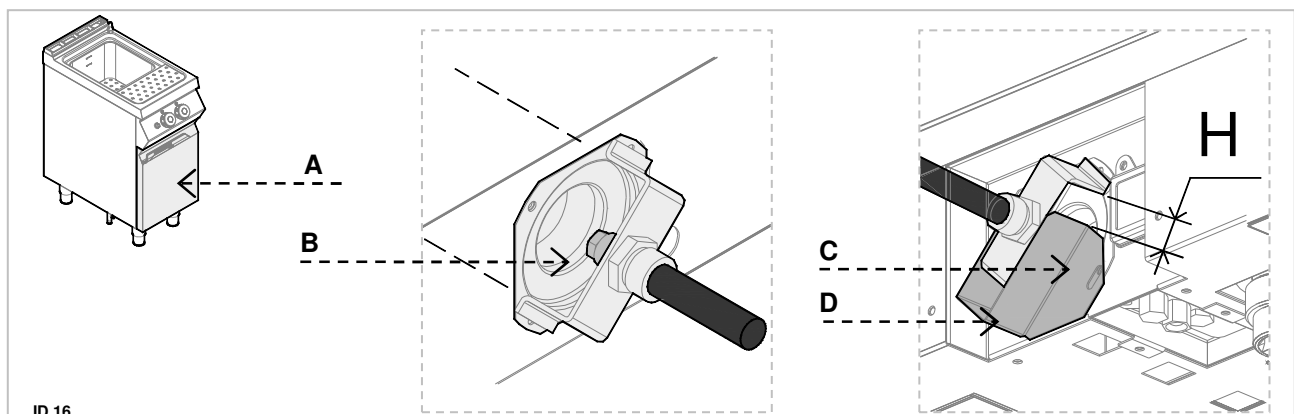
1. Close the gas cut-off valve.
2. Pull the control knob **A**.
3. Unscrew screws **B** and remove the control panel (**C**).
4. Remove the injection nozzle **D** and replace it with the one suitable for used gas type (see appendices). After setting tighten the screw.
5. Finally reinstall the control panel (**C**) and control knob (**A**).



9.2. Replacement of burner nozzle (service technician)

Follow the instructions below.

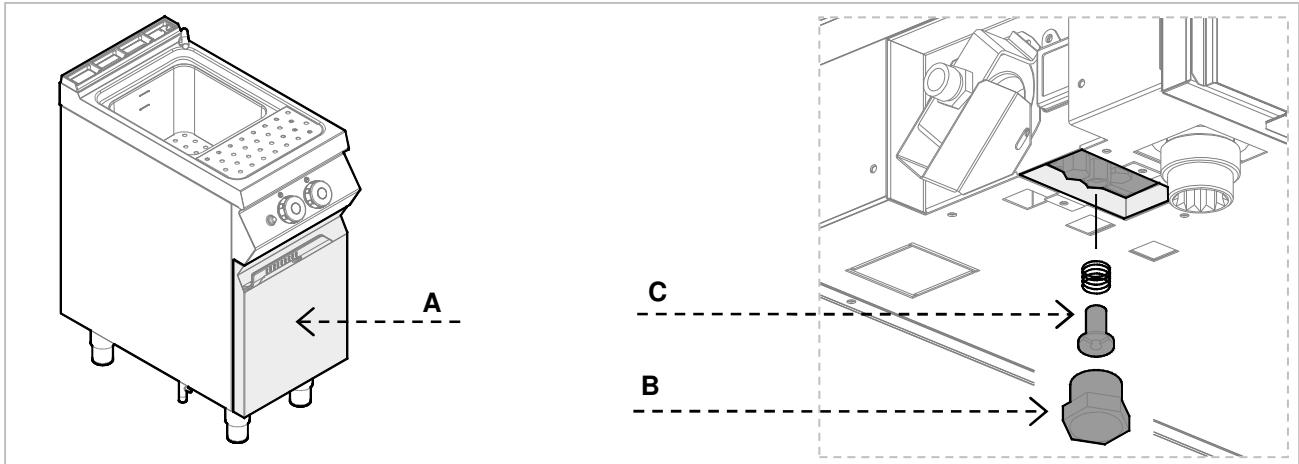
- Close the gas cut-off valve.
- Open the cover (**A**)
- Replace the nozzle (**B**) with a nozzle intended for the used gas (see appendix).
- Loosen screw **C** and set the Venturi pipe (**D**).
- Finally restore the initial state settings.
- Close the cover.



9.3. Replacement of igniting flame burner nozzle (service technician)

Follow the instructions below.

- Close the gas cut-off valve.
- Open the cover (A)
- The ignition flame is assigned to the burner.
- Loosen the nut (B).
- Remove the nozzle C and replace it with a nozzle intended for the used gas (see attached tables).
- Tighten the nut and restore the initial settings.
- Close the cover.



GB

10. APPLIANCE DISPOSAL

i The appliance is marked in conformity with the European Directive 2002/96/EG WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE).

! By disposing the appliance in accordance with the regulations the user contributes towards prevention of adverse effects on environment and health.



The symbol on the product or attached manual indicates that the product cannot be considered as ordinary household waste and should be transferred to a special collection point for electrical and electronic appliances for recycling.

Local waste management regulations should be observed.

Further information on procedure, reusing and recycling of the product is available in local offices, waste management unit or with the product sales agent.

ANLAGEN

ATTACHMENTS

ANNEXES

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ANEXOS

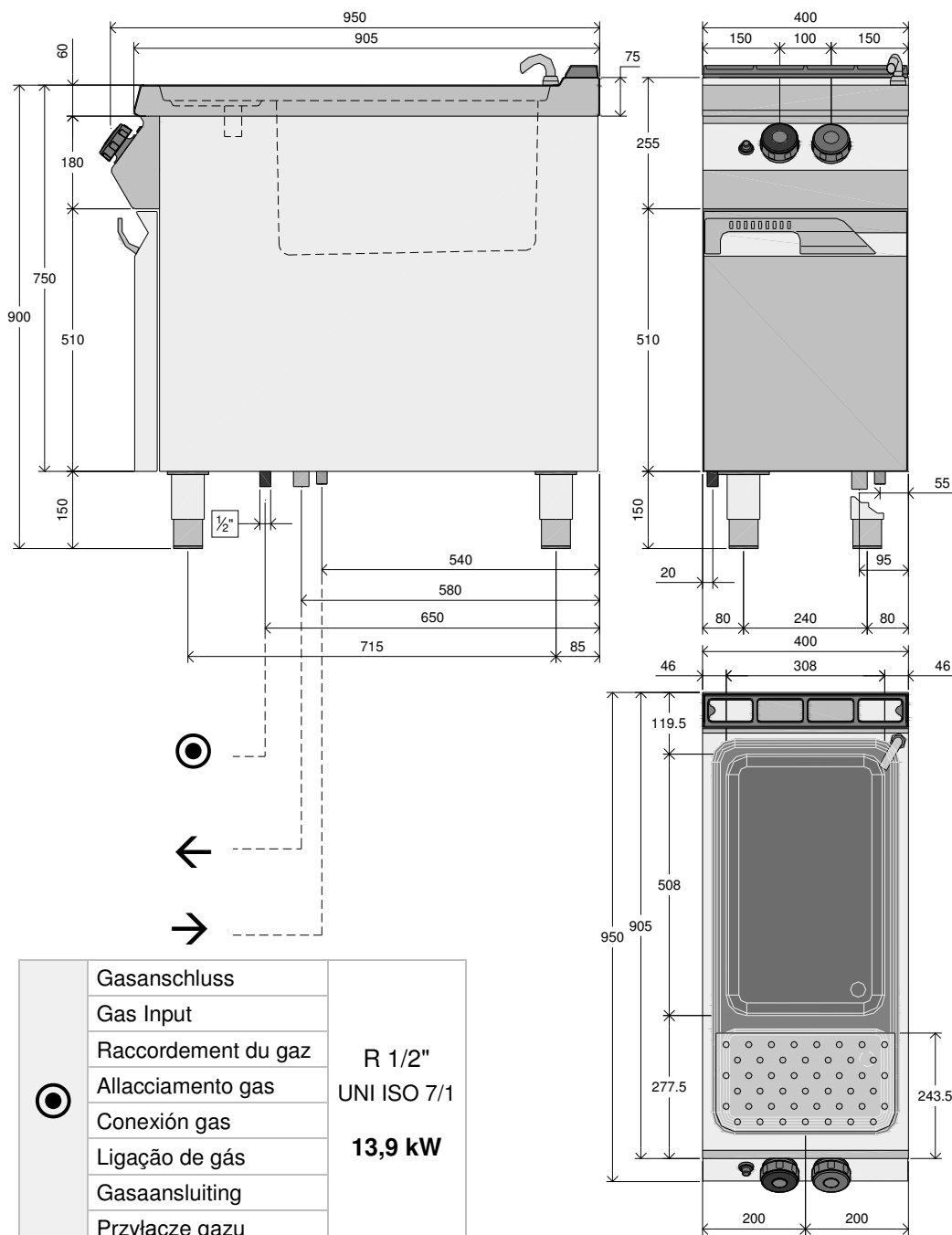
ANEXOS

BIJLAGEN

ZALĄCZNIKI

CPG91M00

ANSCHLUSSSCHEMA - CONNECTION CARD - FICHE DES RACCORDEMENTS - SCHEDA ALLACCIAMENTI - FICHA DE ENLACES - ESQUEMA DAS CONEXÕES - PLAN AANSLUITINGEN SCHEMAT PODŁĄCZENIA



→	Wasseranschluss	R 1/2"	←	Wasserablass	R 1/1"
	Water input			Water drain	
	Raccordement d'eau			Vivage d'eau	
	Allacciamento acqua			Scarico acqua	
	Conexión del agua			Evacuacion del agua	
	Ligação água			Descarga água	
	Wateraansluiting			Waterafvoer	
	Właściwości wody			Odpływ wody	

Modelle	Becken	Brenner	ΣQ_n	Gasverbrauch				
Model	Container	Burner		Gas consumption				
Modèle	Bac	Brûleur		Consommation de gaz				
Modello	Vasca	Bruciatore		Consumo gas				
Modelo	Depósito	Quemador		Consumo de gas				
Modelo	Contentor	Queimador		Consumo de gás				
Model	Bak	Brander		Gasverbruik				
Model	Zbiornik	Palnik		Zużycie gazu				
	I	kW		kW	G20 m ³ /h	G25 m ³ /h	G30 kg/h	G31 kg/h
CPG91M01	40	13,9		13,9	1,47	1,71	1,10	1,08

Tabelle: Düsen für Brenner - Table: Burner nozzles - Tableau : Buses du brûleur - Tabella: ugelli dei bruciatori - Tabla: Toberas del quemador - Tabel: mondstukken voor de brander - Tabela: Dysze palnika

13,9 kW

①	②	Gas	Pen mbar	Qn max kW	Qn min kW	I ③	B ④	P ⑤	H mm ⑥
AT	II2H3B/P	G30/G31	50	13,9	4,5	170	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
BE	II2E+3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
		G25	25	13,9	4,5	290	100	27.2	25
BG	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
CH	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
	II2H3B/P	G30/G31	50	13,9	4,5	170	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
CY	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
CZ	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
DE	II2ELL3B/P	G30/G31	50	13,9	4,5	170	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
		G25	20	13,9	4,5	315	100	27.2	25
DK	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
EE	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
ES	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
FI	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
FR	II2E+3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
		G25	25	13,9	4,5	290	100	27.2	25
GB	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
GR	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
HR	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
IE	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25

Tabelle: Düsen für Brenner - Table: Burner nozzles - Tableau : Buses du brûleur - Tabella: ugelli dei bruciatori - Tabla: Toberas del quemador - Tabel: mondstukken voor de brander - Tabela: Dysze palnika	13,9 kW
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①	②	Gas	Pen mbar	Qn max kW	Qn min kW	I ③	B ④	P ⑤	H mm ⑥
IS	I3B/P	G30/G31	30	13,9	4,5	195	100	22	32
IT	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
LT	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
LU	I2E	G20	20	13,9	4,5	280	100	27.2	25
LV	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
MT	I3B/P	G30/G31	30	13,9	4,5	195	100	22	32
NL	II2L3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G25	25	13,9	4,5	290	100	27.2	25
NO	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
PT	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
RO	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
	II2E3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
	II2L3B/P	G30/31	30	13,9	4,5	195	100	22	32
		G25	20	13,9	4,5	315	100	27.2	25
SE	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
SI	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
SK	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
TR	II2H3+	G30/G31	28/37	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25
	II2H3B/P	G30/G31	30	13,9	4,5	195	100	22	32
		G20	20	13,9	4,5	280	100	27.2	25

- | |
|---|
| ① Land - Country - Pays - Paese - País - País - Land - Kraj |
| ② Kategorie - Category - Catégorie - Categoria - Categoria - Categoria - Kategoría |
| ③ Brennerdüse - Burner nozzles - Buse du brûleur - Ugello del bruciatore - Tobera del quemador - Bico de quemador - Mondstuk van de brander - Dysza palnika |
| ④ Zündbrennerdüse - Pilot burner nozzles - Buse du brûleur d'allumage - Ugello del bruciatore di accensione - Tobera del quemador de encendido - Bico de quemador piloto - Mondstuk van de ontstekingsbrander - Dysza palnika zapłonowego |
| ⑤ Druck Brennerdüse - Burner nozzle pressure - Pression de la buse du brûleur - Pressione dell'ugello del bruciatore - Presión de la tobera del quemador - Pressão de bico de quemador - Druk van het mondstuk van de brander - Ciśnienie dyszy palnika |

Tabelle der Gas-Eigenschaften - Table of gas characteristics - Tableau des propriétés du gaz - Tabella: caratteristiche di gas - Tabla de propiedades del gas - Tabela de propriedades de gás - Tabel van gaseigenschappen - Tabela własności gazu						
Familie Group Famille Tipi Familia Família Famili Rodzina	Gastypen Group Type de gaz Tipi di gas Tipos de gas Tipos de gás Gastypes Rodzaje gazu	Wobbeindex Wobbe index Indice de Wobbe Indice di Wobbe Índice de Wobbe Índice de Wobbe Wobbe-index Liczba Wobbego	Unterer Heizwert Net calorific value Pouvoir calorifique inférieur Potere calorifico min Valor inferior de combustión Valor calorífico mais baixo Onderste verbrandingswaarde Dolna wartość opałowa			
		MJ/m ³	Kcal/m ³	MJ/m ³	Kcal/m ³	MJ/kg
II	G20	45,67	8129	34,02		
	G25	37,38	6989	29,25		
III	G30	80,58			10908	45,65
	G31	70,69			11073	46,34

Tabelle der Gasdrücke - Table of gas pressure - Tableau des pressions - Tabella pressioni di gas - Tabla de presión del gas - Tabela de pressão de gás - Tabel van gasdruk - Tabela ciśnienia gazu

Land - Country - Pays - Paese - País - País - Land - Kraj	G20 mbar			G25 mbar			G30 mbar			G31 mbar		
	②	①	③	②	①	③	②	①	③	②	①	③
IT-GB-IE-PT-CH GR-ES-CZ	17	20	25	-	-	-	20	30	35	25	37	45
FR-BE	17	20	25	20	25	30	20	28	35	25	37	45
LU	17	20	25	-	-	-	-	-	-	-	-	-
DE	17	20	25	17	20	25	42,5	50	57,5	42,5	50	57,5
AT-CH	17	20	25	-	-	-	42,5	50	57,5	42,5	50	57,5
DK-SE-FI-CZ-SI LV-LT-EE-SK	17	20	25	-	-	-	25	30	35	25	30	35
NL	-	-	-	20	25	30	25	30	35	25	30	35
NO	-	-	-	-	-	-	25	30	35	25	30	35
HU	-	-	-	-	-	-	20	30	35	20	30	35
CY	-	-	-	-	-	-	20	28-30	35	25	37	45
MT	-	-	-	-	-	-	28	30	35	28	30	35
PL	17,5	20	25	-	-	-	-	-	-	-	-	-

- ① Nenndruck - Rate pressure - Pression nominale - Pressione nominale - Presión nominal - Pressão nominal - Nominale druk - Ciśnienie nominalne
- ② Mindestdruck - Minimum pressure - Pression minimale - Pressione minima - Presión mínima - Pressão mínima - Minimumdruck - Ciśnienie minimalne
- ③ Höchstdruck - Maximum pressure - Pression maximale - Pressione massima - Presión máxima - Pressão máxima - Maximumdruck - Ciśnienie maksymalne

DE

LAUT GESETZLICHER VORSCHRIFT STEHT DIESES HANDBUCH UNTER EIGENTUMS-
VORBEHALT UND DARF AUS DIESEM GRUND NICHT OHNE UNSERE GENEHMIGUNG
VERVIELFÄLTIGT UND/ODER IN JEDLICHER FORM AN DRITTE WEITERGEGEBEN WERDEN!

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I Z TEGO POWODU NIE MOŻE BYĆ BEZ NASZEJ ZGODY POWIELANA I / LUB PRZEKAZYWANA
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