

GAS TILTING BRATT PANS

Series 700

TYPE: 7BR/G100, 7BRS/G100, 7BR/G105 , 7BRS/G105

Service manual



S/N:

Valid from: 11. 03. 2008

Rev.: 1.0

Dear Customer,

Congratulations on deciding to choose a Baron equipment for your kitchen activities. You made an excellent choice. We will do our best to make also you a satisfied Baron customer like thousands and thousands of others all over the world.

Please read this manual carefully. You will learn many right, safe and efficient working methods in order to get the best possible benefit from the equipment. The instructions and hints in this manual will give you a quick and easy start in using this equipment. You will note very quickly how nice it is to use the Baron equipment.

All rights are reserved for technical changes.

You will find all the main technical data on the rating plate fixed to the equipment. When you need service or technical help, please let us know the serial number of the equipment. This will make it easier to provide you with the correct service. Please write the contact information of your local Baron service in advance on the lines below.

Baron TEAM

Baron service phone number:.....

Contact person:.....

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1. General

Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the appliance.

Keep this manual in a safe place for eventual use by other operators of the appliance.

The installation of this appliance must be carried out in accordance with the manufacturer's instructions and following local regulations. The connection of the appliance to the electric and water supply must be carried out by qualified persons only.

Persons using this appliance should be specifically trained in its operation.

Switch off the appliance in the case of failure or malfunction. The periodical function checks requested in the manual must be carried out according to the instructions. Have the appliance serviced by a technically qualified person authorized by the manufacturer and using original spare parts.

Not complying with the above may put the safety of the appliance in danger.

1.1 Symbols used in the manual



This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.



This symbol informs about the right way to perform in order to prevent bad results, appliance damage or hazardous situations.



This symbol informs about recommendations and hints that help to get the best performance out of the appliance.



This symbol informs about a function that has to be taken into account in self-control.

1.2 Symbols used on the appliance



This symbol on a part informs about electrical terminals behind the part. The removal of the part must be carried out by qualified persons only.

1.3 Checking the relationship of the appliance and the manual

The rating plate of the appliance indicates the serial number of the appliance. If the manuals are missing, it is possible to order new ones from the manufacturer or the local representative. When ordering new manuals it is essential to quote the serial number shown on the rating plate.

2. Safety

2.1 Using the appliance safely



Being an appliance designed only for professional use, it should be operated by qualified personnel exclusively. Never leave the appliance unattended while it is on.

Do not move the appliance while hot.

2.2 Safety instructions in the event of a fault

In case of the fault, malfunction, etc., you should turn off the gas shutoff valve upstream of the appliance. Contact the Technical Support Service.

2.3 Additional prohibitions (hazardous procedures)



Never tamper with the seals of the adjusting screws located on the gas valves.

2.4 Disposing of the appliance

This appliance has been manufactured using recyclable raw materials and does not contain any hazardous or toxic substances. When disposing of the appliance and all its packing materials, ensure strict compliance with all applicable regulations in force in the installation location. Packing materials should be separated by type and subsequently delivered to specific collection sites. Ensure compliance with environmental protection regulations.



The crossed bin symbol on the appliance indicates that at the end of its useful life the product must be collected separately from other waste. Therefore, at the end of the equipment's life the user must take it to a suitable centre for differentiated collection of electrical and electronic waste, or give it back to the dealer when purchasing a new appliance of equivalent type. Suitable differentiated collection favours the recycling of materials and helps prevent possible negative effects for the environment and the health of persons. Improper disposal of the product by the user is punishable by law.

3. Functional description

3.1 Application of the appliance

The appliance is designed for use in the gastronomy and confectionery industries only.

The bratt pan is intended for cooking and frying raw materials and also for cooking sauces.

3.1.1 Prohibited use



This appliance should not be used as if it were a fryer.

The manufacturer cannot be held liable for any faults caused by defective installation or inappropriate use of the appliance. In such cases, the warranty shall be null and void.

3.2 Construction

Stainless steel bearing structure resting on four height-adjustable feet. Outer covering and worktop are all stainless steel .

Pan is nodular cast iron, a material that exhibits a high thermal conductivity, thus ensuring a faster thermal response and preventing food from sticking to the bottom..

3.3 Operating principle

Product is heated up to the desired temperature by means of tubular steel burners fitted outside the tank. Burners can withstand both mechanical and thermal stress. The pilot flame and the burners are fitted with fixed nozzles.

You can select the temperature of the bottom of the tank between 50°C and 300°C.

Functional description

3.3.1 Operating switches and indicator lights



Fig. 1

1. Water supplier
2. Water filling valve
3. Temperature control knob
4. Ignition device
5. Ignition button
6. Burner-pilot flame inspection hole
7. Pan cover handle
8. Handwheel

4. Operating instructions

4.1 Before using the appliance

4.1.1 Preparing the appliance for use

Prior to cooking for the first time, we recommend that you clean the appliance, and especially the cooking pan, very thoroughly. Remove all packing materials and adhesive films from the appliance very carefully. Before cleaning the stainless steel parts, make sure that the detergent you intend to use does not contain any abrasive substances and that it is suitable for stainless steel surfaces. Wipe the appliance dry with a clean cloth.

Never use water jets to clean the appliance.

4.2 Using the appliance

4.2.1 Filling the tank

Fill the tank with water to the maximum level by opening the filling valve.

The tank of the appliance must not be filled to more than maximum level, internally marked.

4.2.2 Lighting the pilot flame

Turn the knob towards the right position in Fig. 3 until the pos. 2 in Fig. 3.

Push the knob slightly item 1 in Fig. 2 and turn it up to the position marked with spark in item 4 in Fig. 2. Hold the knob down, then press the piezoelectric ignition button in item 2 in Fig. 2 for lighting the pilot flame, check for the ignition by appropriate inspection hole (pos. 6 in Fig. 1).

Hold down the knob for about 15-20 seconds so the thermocouple can be heated. If the pilot flame goes out, repeat the lighting procedure.

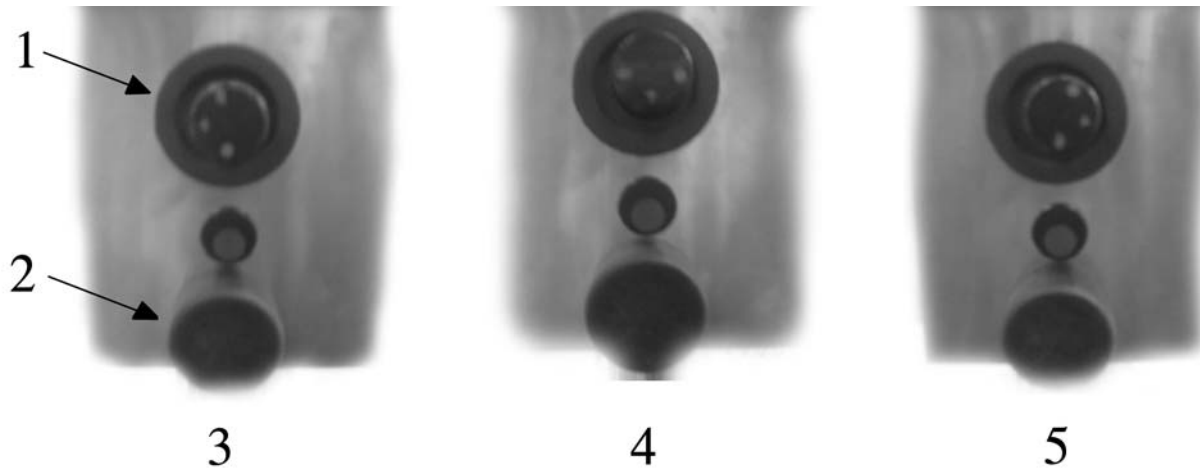


Fig. 2

1. Ignition device
2. Piezoelectric ignition button
3. OFF position
4. Pilot flame ignition position
5. Regular operation position

Once you verified that the pilot flame is lighted on, turn the button further as shown in item 5 in Fig. 2.

4.2.3 Lighting the main burner

If you turn the knob further in Fig. 3 the bottom of the tank will start heating. Heating is through heat spread by tubular stainless steel burners which can withstand mechanical and thermal stress.

You can select the temperature of the bottom of the tank between 50°C (item 2) and 300°C (item 3).

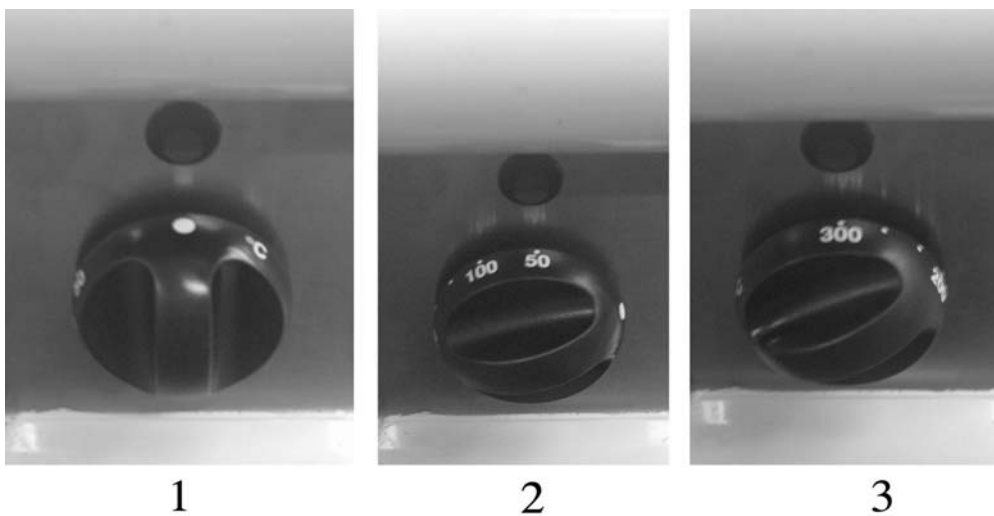


Fig. 3

1. OFF position
2. Minimum position
3. Maximum position

4.2.4 Cooking liquid and semi-liquid foods

- Select the cooking temperature using adjustment knob.
- Check the tank is always filled with water.

Never leave the appliance unattended while in use.

4.2.5 Cooking solid foods

- Select the cooking temperature using adjustment knob.
- Apply some oil or fat on the bottom of the tank.
- When the set temperature has been reached, put the food to be cooked in the tank.
- When the bottom side of the food has reached the desired cooking grade, invert it and cook the other side.
- When both sides are cooked, decrease the temperature and leave the food into the tank until its using.

Never leave the appliance unattended while in use.

4.2.6 Switching off the appliance

To switch off the main burner, turn the knob towards the left to the position in the item 1 in Fig. 3; only the pilot flame will remain lit. Exercise a slight pressure and turn the button in Fig. 2 up to the item 3 to switch also the pilot flame.

4.2.7 Emptying the tank

Give utmost attention to this operation, which must be carried out when the liquid into the tank has cooled down.

- Switch the appliance off as shown in the previous paragraph.
- Turn the handle (item 1 in Fig. 4) in a clockwise direction.
- The tank starts lifting up to the desired position or to the end stop position.
- In order to horizontally place the tank again, turn it in a counter-clockwise direction.

**Fig. 4**

1. Handle for lifting tank

4.3 After-use care

4.3.1 Cleaning

Before cleaning, turn off the appliance and shut off gas supply upstream of it.

Wait until the appliance has cooled down before you start cleaning it.

General information

The main causes for stainless steel wear or corrosion are:

- using abrasive or acid detergents, especially chlorine-based products such as hydrochloric acid or sodium hypochlorite (bleach). Therefore, before buying a detergent product, make sure it does not corrode stainless steel (see also paragraph "Routine cleaning");
- stagnation of ferrous deposits (such as those created by rust dissolved in the water flowing through the piping, especially after the appliance has remained idle for some time). Therefore, avoid such stagnation. Do not use wire scourers to remove the most stubborn food residues. Use, rather, scourers or spatulas made of stainless steel or softer, non-ferrous materials;
- stagnation of substances having acid components such as vinegar, lemon juice, sauces, salt, etc. Avoid prolonged contact of the stainless steel parts of the appliance with those substances. The evaporation of saline solutions over the surfaces of the appliance is particularly harmful to them.

Routine cleaning

Cleaning the appliance thoroughly on a daily basis is the key to keeping it in perfect working condition and prolonging its life. Clean the appliance with a damp cloth using water and soap or detergents, provided that they are not acid or abrasive as discussed further above. Such detergents should not even be used to wash the floor near the appliance, as

Operating instructions

their fumes may deposit on the steel surfaces and damage them. If the appliance is very dirty, use a synthetic Scotch Brite™ type sponge. Rinse it off with clean water and wipe it dry with a clean cloth. Do not rub the appliance with wire scourers as they could leave rust stains. For the same reason, avoid touching the appliance with ferrous objects.

Never use direct water jets to clean the appliance because this could result in water entering into it and damaging it.

Stains and abrasions on the steel surface

Scratches and dark stains may be smoothed or removed using stainless steel scourers or synthetic abrasive sponges, which should always be rubbed in the same direction as the satin finish.

Rust

If you need to remove rust stains, contact manufacturers of industrial detergents to find a suitable product. Industrial descaling products can also be used to that end. After using the descaler and rinsing off the appliance with clean water, an alkaline detergent may be required to neutralize any acid compounds left on the surface.

4.3.2 Idle period

If the appliance will remain idle for a certain period of time, clean it and wipe it dry first, and then apply a film of a suitable product (such as vaseline oil spray or similar products) to protect it.

Turn off both power supply and the gas shut-off valve upstream of the appliance.

4.3.3 Periodic maintenance

Only qualified personnel are allowed to carry out service and maintenance operations.

The following maintenance operations should be performed at least once a year:

- checking for proper operation of all control and safety devices;
- checking combustion, i.e.:
 1. ignition;
 2. combustion safety;
 3. checking for proper operation throughout the ON-OFF-ON control range;
- lubricating all pan tilting mechanisms.

We recommend that you sign a service agreement providing for at least one check-up a year.

5. Installation

5.1 General information



The manufacturer cannot be held liable for any injuries to persons or damage to property resulting from installation errors or from inappropriate use of the appliance and is not responsible for any faults caused by defective installation. In such cases the warranty shall be null and void.



Installation, maintenance, connection to gas supply and start-up should all be performed by an authorised installer who must ensure compliance with all applicable safety regulations in force in the location where the appliance is being installed.

5.1.1 Regulatory installation conditions

We remind you that all appliances installed in public assembly buildings must meet the requirements specified below. Ensure that installation and maintenance of the appliance are performed in strict compliance with all applicable regulations and standards in force, namely:

- safety regulations on fire hazard and panic in public assembly buildings;
- general regulations applicable to all appliances;
- systems burning combustible gas and liquefied hydrocarbons.

Then, follow the specific regulations according to the type of gas being used.

- heating, ventilation, refrigeration, air conditioning, and generation of steam and hot water for sanitary use;
- installation of foodservice cooking appliances;
- specific regulations applicable to each type of public assembly building (hospitals, shops, etc.).

5.2 Exhausting fumes

The appliance should be installed in a well-ventilated area, if possible under an exhaust hood, in compliance with all applicable regulations in force. This will ensure that all burnt gases produced during the combustion process are completely exhausted. The amount of air required for combustion is shown in the "*Technical specifications table*" at the end of this manual.



In compliance with applicable installation regulations in force, our appliances belong to the type shown under "Construction type" in the "*Technical specifications table*".

5.3 Storage

If the appliance is stored in a warehouse where room temperature is below 0°C (32°F), it should be warmed up to at least +10°C (50°F) before switching it on.

5.4 Unpacking the appliance

Prior to installation, remove all packing materials from the appliance. Some parts are wrapped in adhesive film, which should be thoroughly removed (see paragraph "Before using the appliance").

5.5 Disposing of packing materials

Packing materials should be disposed of in compliance with all applicable regulations in force at the installation location. Packing materials should be separated by type and subsequently delivered to specific collection sites. Ensure compliance with environmental protection regulations.

5.6 Positioning

Level the appliance using a bubble level. The appliance's height can be adjusted by means of its adjustable feet. In this way, the appliance will be firmly secured.

Ensure compliance with all workplace fire and safety regulations.



If the appliance is installed with its sides next to flammable walls (made of wood or similar materials) or heat-sensitive walls (made of plasterboard or similar materials), suitable protective measures should be taken to keep such walls undamaged. Therefore, apply a coating to insulate them from radiative heat or keep a minimum clearance of 0 mm from the sides and 50 mm (2") from the back of the appliance.

Installation

5.7 Gas supply connection

This appliance is designed to burn natural and liquid gas. To find out the category to which this appliance belongs in the country where it is installed, please refer to the table below.

Table 1: categorie e pressioni gas

COUNTRY	APPLIANCE CATEGORY	GAS	RATED PRESSURE mbar	MINIMUM PRESSURE mbar	MAXIMUM PRESSURE mbar
Belgium France	II2E+3+	G20	20	17	25
		G25	25	17	30
		G30	28	25	35
		G31	37	25	45
Spain Great Britain Ireland Greece	II2H3+	G20	20	17	25
		G30	28	25	35
		G31	37	25	45
Italy Italian Switzer- land Portugal	II2H3+	G20	20	17	25
		G30	30	25	35
		G31	37	25	45
Austria German Switzer- land	II2H3B/P	G20	20	17	25
		G30	50	42.5	57.5
		G31			
Germany	II2ELL3B/P	G20	20	17	25
		G25			
		G30	50	42.5	57.5
		G31			
Czech Republic Finland Slovakia Latvia Lithuania Estonia Slovenia Norway	II2H3B/P	G20	20	17	25
		G30			
		G31	30	25	35
Denmark	III1a2H3B/P	G110	8	6	15
		G20	20	17	25
		G30	30	25	35
		G31			
Sweden	III1ab2H3B/P	G110	8	6	15
		G120			
		G20	20	17	25
		G30	30	25	35
		G31			
Luxembourg	I2E	G20	20	17	25
Netherlands	II2L3B/P	G25	25	20	30
		G30	30	25	35
		G31			

Table 1: categorie e pressioni gas

COUNTRY	APPLIANCE CATEGORY	GAS	RATED PRESSURE mbar	MINIMUM PRESSURE mbar	MAXIMUM PRESSURE mbar
Hungary	I12HS3B/P	G20	25	20	33
		G25.1			
		G30	30	25	35
		G31			
Cyprus Iceland Malta	I3B/P	G30	30	25	35
		G31			
Iceland	I2H	G20	20	17	25
Cyprus	I3+	G30	28	25	35
		G31	37	25	45

The appliance should be connected to the gas supply by means of either hard or soft metal tubing having a proportionate diameter (see "*Technical specifications table*" at the end of this manual); when joining pipe fittings, never use oakum or Teflon as their residues could get to the valve/regulator and jeopardise its operation. Fit a gas shut-off valve upstream of the system, which should remain closed whenever the appliance is not working. Operating pressure values are shown on the rating plate and in the above table of "Gas categories and pressure values".



After connecting the appliance to the gas system, check for leaks at joints and pipe fittings; to do so, use soapy water or a specific leak detector (spray).

5.8 Checking gas supply pressure after installation

5.8.1 Preliminary check

Check that the appliance is pre-set to operate with the gas type available at the place of use. If the available gas is different, the appliance must be regulated to operate with the new sort.

5.8.2 Checking the supply pressure

The gas supply pressure can be measured with a liquid or digital pressure gauge.

To access to screws of the pressure test point, proceed as follow:

- remove the right angle as indicated in the related paragraph;

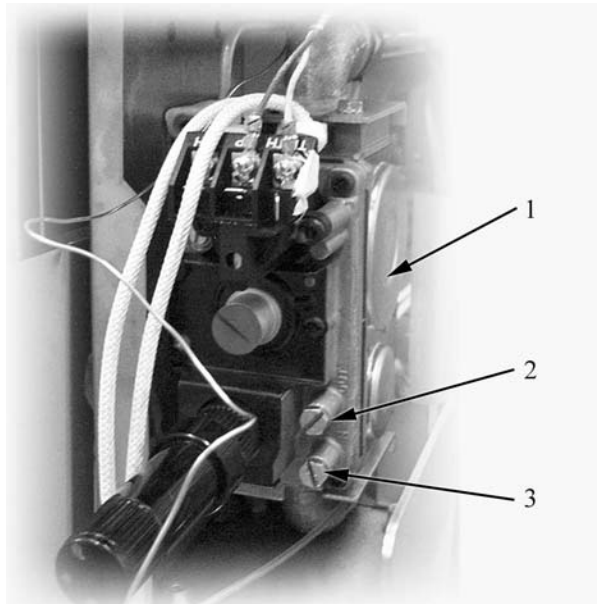


Fig. 5

1. Gas valve
2. Pressure test point of the outgoing gas
3. Pressure test point of the incoming gas

- Unscrew the screw (pos. 3 in Fig. 5) on the pressure test point;
- Put the pressure gauge in place;
- Switch on the appliance as discussed in the "Operating instructions";
- Check supply pressure;
- Remove the pressure gauge;
- Replace the screw (pos. 3 in Fig. 5) and check there are no leaks.

If the measured pressure value is within the range shown in "Gas categories and pressure values", the appliance can be started up. Otherwise, contact the gas utility company.

5.9 Gas technical specifications



The appliance should be started up at its rated output with the nozzles shown in "Specifications for the burners, nozzles and settings" below. All the necessary nozzles are provided in a small bag together with the appliance. Main burner nozzles are marked in hundredths of mm, while those of pilot flames have a reference number.

Table 2: Specifications for the burners, nozzles and settings

		7BR/G100,7BRS/G100, 7BR/G105,7BRS/G105
Rated power (kW)		14
Minimum output (kW)		
Natural gas consumption (m ³ /h)	G20	1.48
	G25	1.72
	G25.1	1.72
Liquid gas consumption (kg/h)		1.10
Town gas consumption (m ³ /h)	G110	3.61
	G120	3.22
G20 20 mbar		
Rated pressure (mbar)		20
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	51
	Max.	280
	Min.	-
Primary air distance (mm)		9
G25 20 mbar		
Rated pressure (mbar)		20
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	51
	Max.	310
	Min.	-
Primary air distance (mm)		9
G25 25 mbar		
Rated pressure (mbar)		25
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	51
	Max.	280
	Min.	-
Primary air distance (mm)		9
G30/31 28/37 mbar		
G30/31 30 mbar		
G30/31 30/37 mbar		
Rated pressure (mbar)		28 / 30 / 37
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	30
	Max.	190
	Min.	

Table 2: Specifications for the burners, nozzles and settings

		7BR/G100,7BRS/G100, 7BR/G105,7BRS/G105
Primary air distance (mm)		14
G30/31 50 mbar		
Rated pressure (mbar)		50
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	25
	Max.	165
	Min.	
Primary air distance (mm)		10
G20 25 mbar		
Rated pressure (mbar)		25
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	51
	Max.	280
	Min.	-
Primary air distance (mm)		9
G25.1 25 mbar		
Rated pressure (mbar)		25
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	51
	Max.	280
	Min.	-
Primary air distance (mm)		9
G110 8 mbar		
Rated power (kW)		8
Rated pressure (mbar)		
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	
	Max.	
	Min.	
Primary air distance (mm)		
G120 8 mbar		
Rated power (kW)		
Rated pressure (mbar)		
Reduced pressure (mbar), minimum		
Nozzles (1/100 mm)	Pilot flame	
	Max.	
	Min.	
Primary air distance (mm)		

5.10 Checking operations

- Switch on the appliance following "Operating instructions";
- check for any leaks;
- check flame stability throughout the whole temperature control range (ON-OFF-ON).
- check the ignition process along the entire main burner and check the flames are regular;
- check the pilot flame operates correctly;
- check that burnt gases come out from the pipes provided in a regular manner;
- check that there is a good inflow of fresh air.

5.11 Water hook-up

The water supply connection must be made using a flexible or rigid metal pipe with an adequate cross-section.

5.12 Staff training

Inform all personnel assigned to operate the appliance on how to use it by referring to this user's manual and hand them out the manual.

5.13 Rating plate

The rating plate showing the specifications of the corresponding model is applied in the position shown in the installation and connection drawings and includes the data listed below:

Manufacturer:	
Model:	(see front page)
Serial number:	
Year of manufacture:	
Category:	(see "Technical specifications table")
Heating power:	(see "Technical specifications table")
Natural gas consumption:	(see "Technical specifications table")
Liquid gas consumption:	(see "Technical specifications table")
Supply pressure:	
natural gases: G20	(see "Table of gas categories and pressure values" further above)
liquid gases (butane/propane): G30/G31	(see "Table of gas categories and pressure values" further above)
town gas: G110/G120	(see "Table of gas categories and pressure values" further above)
Gas inlet pipe size:	(see "Technical specifications table")
Supply voltage:	(see the label on the packing and on the appliance)
Appliance pre-set to use:	

6. Adjustment instructions

To change over (for example) from natural gas to liquid gas, you must replace the nozzles of the main burners and pilot flames. The appropriate nozzles are indicated in the "Specifications for the burners, nozzles and settings".

Before performing any sort of work on the appliance, turn off the gas supply valve upstream of the appliance.

6.1 Removing the RH angle bar

- unscrew the bolts pos. 5 in Fig. 6.



Fig. 6

1. Handwheel pin
 2. Handwheel
 3. LH angle bar bolts
 4. Front panel bolts
 5. RH angle bar bolts
 6. Temperature adjuster knob
- extract the RH angle bar;

The Rh angle bar stays connected to the rest of the device via the ignition cable and operating thermostat.

6.2 Removing the LH angle bar

- remove the handwheel pin pos. 1 in Fig. 6 ;
- remove the handwheel pos. 2 in Fig. 6 from the rod;
- unscrew the bolts pos. 3 in Fig. 6;
- extract the LH angle bar.

6.3 Removing the front panel

- unscrew the bolts pos. 4 in Fig. 6;
- extract the front panel.

6.4 Removing the back panel

- unscrew the 4 rear bolts;
- extract the rear panel.

6.5 Removing the RH side panel

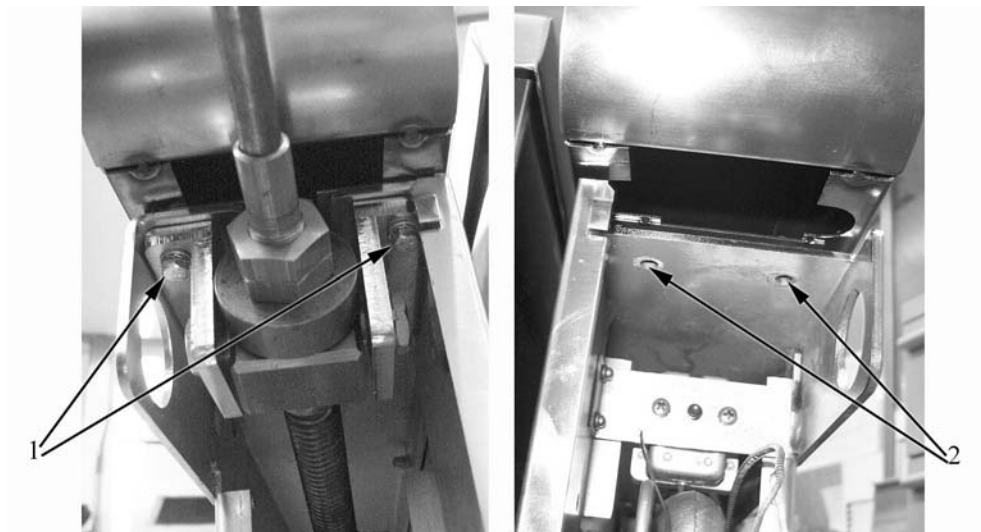
- remove the RH angle bar as described in the paragraph in question;
- unscrew the 2 back panel bolts, the 2 side panel bolts and the 2 bottom frame bolts;
- extract the RH side panel.

6.6 Removing the LH side panel

- remove the LH angle bar as described in the paragraph in question;
- unscrew the 2 back panel bolts, the 2 side panel bolts and the 2 bottom frame bolts;
- extract the LH side panel.

6.7 Removing the hob

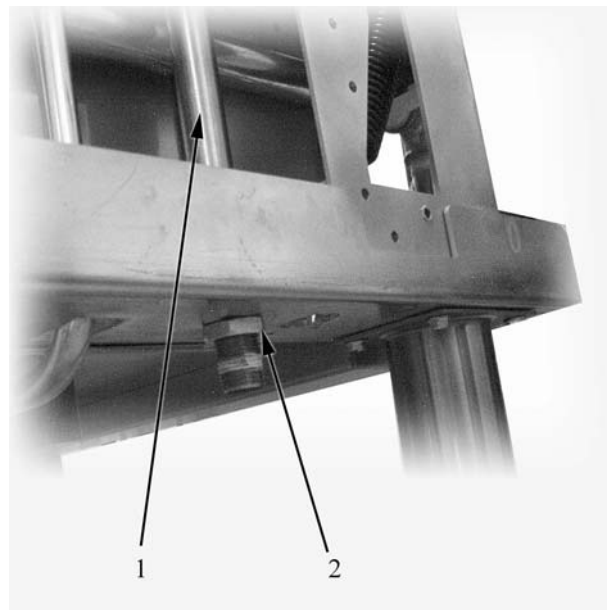
- remove the back panel, angle bars and side panels as described in the paragraphs in question (in the order given here).
- unscrew the front bolts pos. 1 and pos. 2 in Fig. 7;

**Fig. 7**

1. LH hob front bolts
 2. RH hob front bolts
- unscrew the rear bolts pos. 1 in Fig. 8;

**Fig. 8**

1. Rear hob bolts
- remove the flue grilles;
 - unscrew the water column extension collar pos. 2 in Fig. 9;

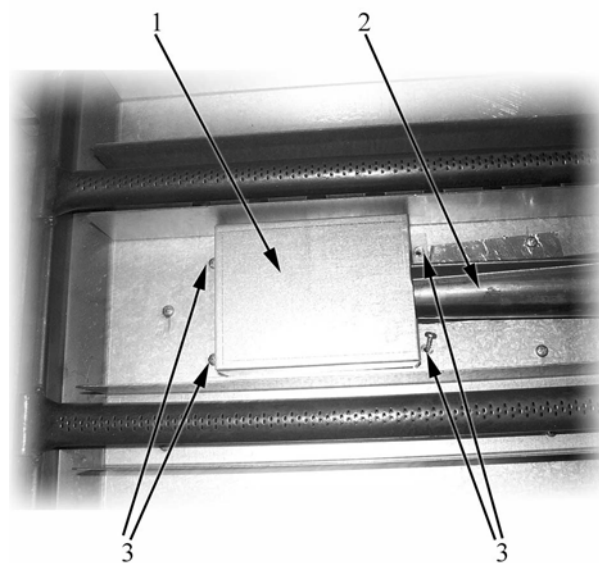
**Fig. 9**

1. Water column extension
 2. Water column extension collar
- raise the hob.

6.8 Replacing the burner nozzles

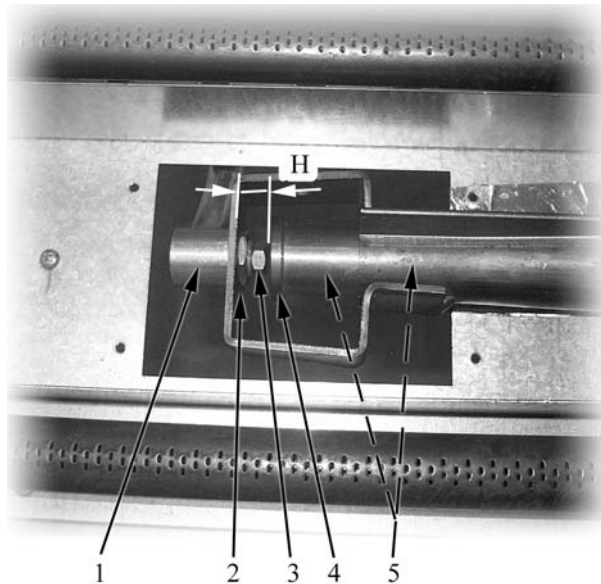
For replacing the main burner nozzles, proceed as follow:

- Lift the tank;
- unscrew the fixing screws of the nozzle cover item 3 in Fig. 10;

**Fig. 10**

1. Nozzle cover

2. Main burner
 3. Fixing screws of the nozzle cover
- remove the nozzle cover item 1 in Fig. 10;
 - unscrew the nozzle (item 3 in Fig. 11) using a 12 mm wrench and install the appropriate nozzle (see information in the "Specifications for the burners, nozzles and settings");

**Fig. 11**

1. Nozzle holder lock
 2. Fixing metal ring of the nozzle holder lock
 3. Nozzle
 4. Primary air adjusting bushing
 5. Bushing fixing screw
 - H. Primary air distance
- After any replacement of the main burner nozzle, you must adjust primary air;
 - unscrew the bushing fixing screw item 1 in Fig. 11 (it is located on the bottom side compared to the figure);
 - move the bushing until obtain the values listed in the table "*Specifications for the burners, nozzles and settings*" (Primary air distance - item H in Fig. 11) ;
 - screw the fixing screw of the bushing again item 1 in Fig. 11.
 - Follow the procedure in reverse to fix the removed parts.

6.9 Replacing the pilot flame burner nozzle

The pilot flame burner has fixed nozzles and fixed air adjustment. To switch the appliance on with other type of gases, you must replace old nozzle (item 2 in Fig. 12) with the new one listed in the table 2 "*Specifications for the burners, nozzles and settings*", according to type of used gas. It is not necessary to adjust the primary air.

To replace the nozzle, proceed as follows:

- lift the tank;

Adjustment instructions

- unscrew the flame pilot union (item 2 in Fig. 12);
- remove the pipe (item 1 in Fig. 12) and replace the nozzle with the appropriate one.
- Always use a spanner when loosening the unions, fitting it onto the pilot flame assembly to counterbalance the force supported by the unions, to avoid twisting the pilot flame shaft and subsequent wrong position for the pilot flame.

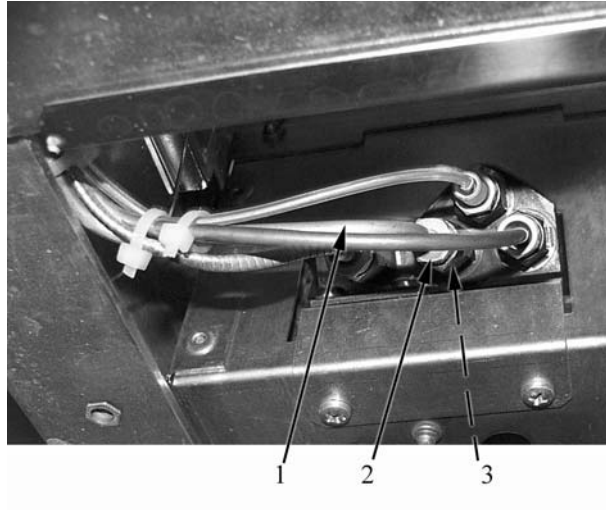


Fig. 12

1. Pilot flame pipe
2. Pilot flame pipe union
3. Pilot flame burner nozzle

6.10 Checking operations

- Switch on the appliance following "Operating instructions";
- check for any leaks;
- check flame stability throughout the whole temperature control range (ON-OFF-ON).
- check the ignition process along the entire main burner and check the flames are regular;
- check the pilot flame operates correctly;
- check that burnt gases come out from the pipes provided in a regular manner;
- check that there is a good inflow of fresh air.

7. Service

Before attempting to repair or service the appliance, always turn off the gas shut-off valve upstream of the appliance and disconnect it from power supply.

7.1 Replacing the main burner

- Lift the tank up to maximum height;
- unscrew the fixing screws of the nozzle cover item 3 in Fig. 13;

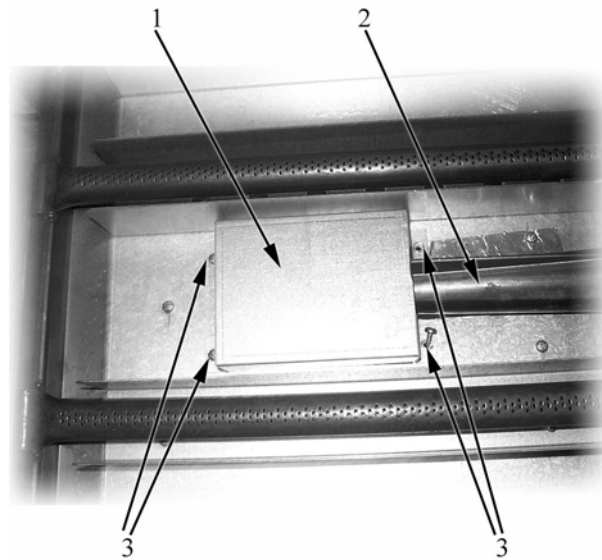
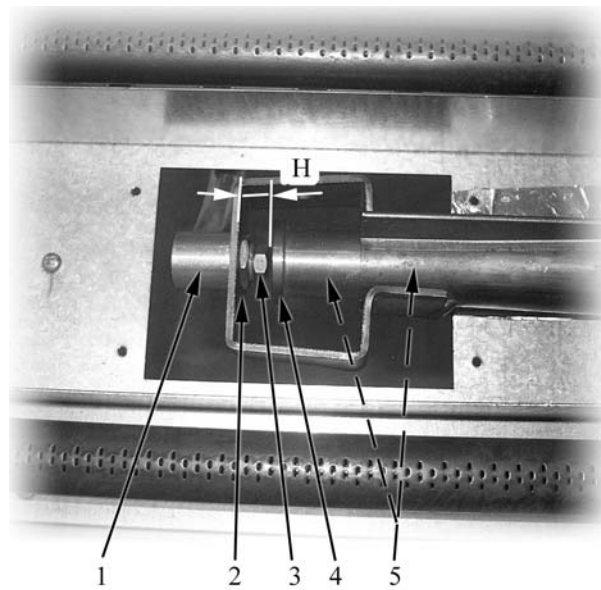


Fig. 13

1. Nozzle cover
2. Main burner
3. Fixing screws of the nozzle cover

- remove the nozzle cover item 1 in Fig. 13;
- unscrew the fixing metal ring of the nozzle holder lock (item 2 in Fig. 14);

**Fig. 14**

1. Nozzle holder lock
2. Fixing metal ring of the nozzle holder lock
3. Nozzle
4. Primary air adjusting bushing
5. Bushing fixing screw

- unscrew the 4 fixing screws of the burner (item 1 and item 2 in Fig. 15);

**Fig. 15**

1. Back fixing screws
2. Front fixing screws

- remove the burner and use the bushing (item 4 in Fig. 14) and the fixing screw (item 5 in Fig. 14);
- replace it and follow the procedure in reverse to fix the new one in place.

7.2 Replacing the pilot flame

- Lift the tank;
- unscrew the union of the ignition plug (item 3 in Fig. 16) and remove it (item 2 in Fig. 16);
- unscrew the union of the thermocouple (item 11 in Fig. 16) and remove it (item 10 in Fig. 16);
- unscrew the union of the pilot flame pipe (item 8 in Fig. 16);
- unscrew the union of the thermopile (item 5 in Fig. 16) and remove it (item 4 in Fig. 16);
- Always use a spanner when loosening the unions, fitting it onto the pilot flame assembly to counterbalance the force supported by the unions, to avoid twisting the pilot flame shaft and subsequent wrong position for the pilot flame.
- unscrew the fixing screws of the flame pilot support square (item 7 in Fig. 16);

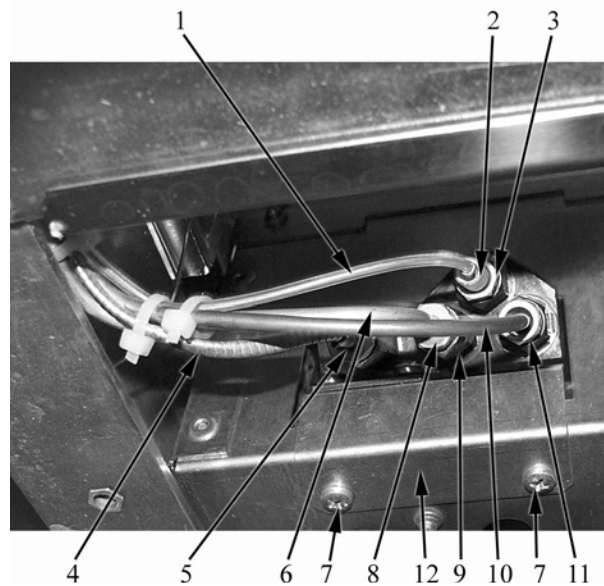


Fig. 16

1. Ignition plug cable
2. Ignition plug
3. Ignition plug union
4. Thermopile
5. Thermopile union
6. Pilot flame pipe
7. Fixing screws on the pilot flame support square
8. Pilot flame union
9. Pilot flame
10. Thermocouple
11. Thermocouple union
12. Pilot frame support square

- use the flame pilot support square;
- replace it and follow the procedure in reverse to fix the new one in place.

7.3 Replacing the ignition plug

- Lift the tank;
- disconnect the ignition cable (item 1 in Fig. 16);
- unscrew the union of the ignition plug (item 3 in Fig. 16) and remove it (item 2 in Fig. 16);
- replace it and follow the procedure in reverse to fix the new one in place.

7.4 Replacing the thermocouple

- Remove the right angle as indicated in the related paragraph;
- lift the tank;
- unscrew the fixing union of the thermocouple on the gas valve (item 1 in Fig. 17);
- unscrew the union of the thermocouple (item 11 in Fig. 16) and remove it (item 10 in Fig. 16);
- unweld the soldered wires;
- Use a spanner when loosening the union, fitting it onto the pilot flame assembly to counterbalance the force supported by the unions, to avoid twisting the pilot flame shaft and subsequent wrong position for the pilot flame.
- replace it and follow the procedure in reverse to fix the new one in place by tinning the wires unwelded previously.

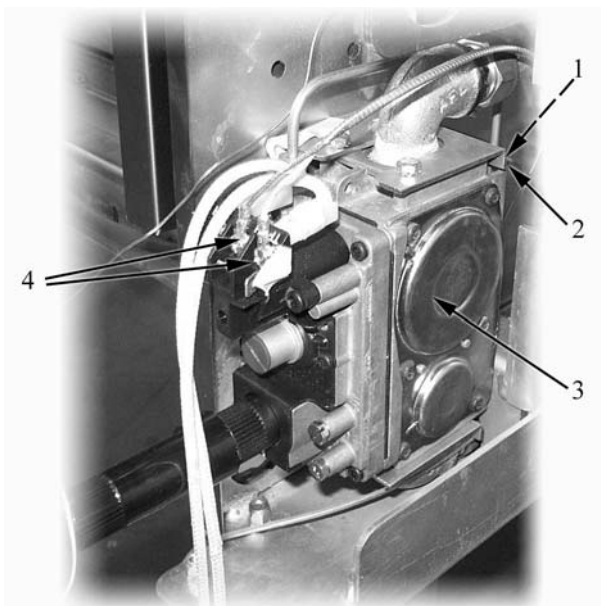


Fig. 17

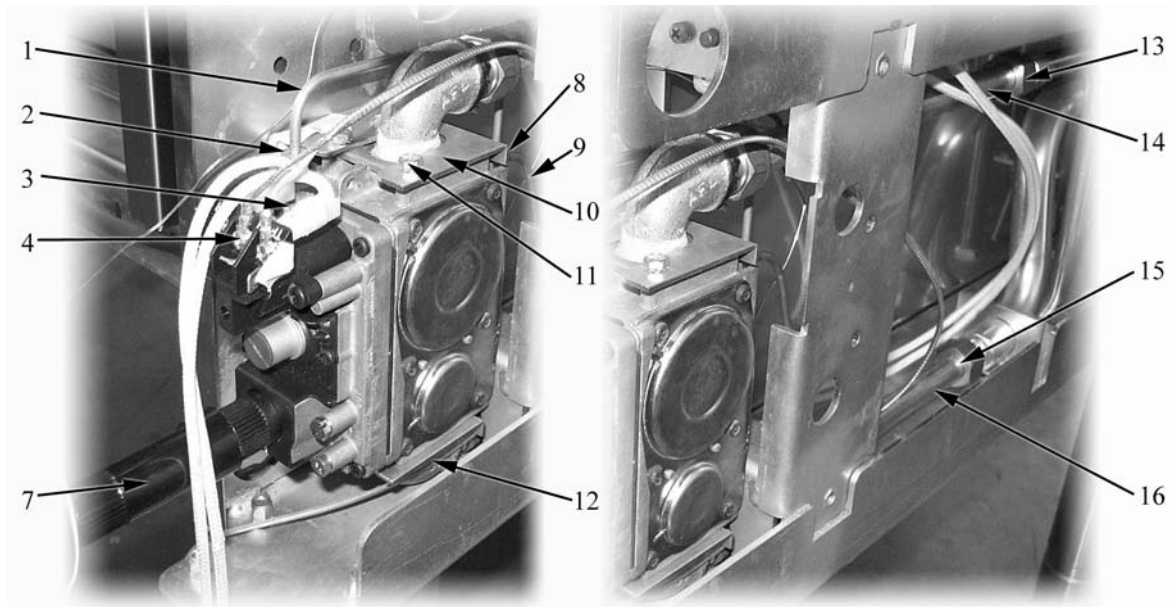
1. Thermocouple union
2. Thermocouple
3. Gas valve
4. Thermopile electrical connections

7.5 Replacing the thermopile

- Remove the right angle as indicated in the related paragraph;
- lift the tank;
- disconnect the thermopile electrical connections on the gas valve (item 4 in Fig. 17);
- unscrew the union of the thermopile on the flame pilot (item 5 in Fig. 16) and remove it (item 4 in Fig. 16);
- Use a spanner when loosening the union, fitting it onto the pilot flame assembly to counterbalance the force supported by the unions, to avoid twisting the pilot flame shaft and subsequent wrong position for the pilot flame.
- replace it and follow the procedure in reverse to fix the new one in place.

7.6 Replacing the gas valve

- remove the right angle and the right side as indicated in the related paragraphs;
- disconnect the electrical connections of the operating thermostat (item 3 in Fig. 18) and of the thermopile (item 4 in Fig. 18);
- unscrew the thermocouple union (item 8 in Fig. 18);
- unscrew the union of the pilot flame pipe (item 2 in Fig. 18);
- unscrew the union of the gas outlet pipe (item 13 in Fig. 18);
- unscrew the union of the gas inlet pipe (item 15 in Fig. 18);
- unscrew the two fixing screw (item 11 in Fig. 18) of the top flange (item 10 in Fig. 18);
- unscrew the two fixing screws of the bottom flange (item 12 in Fig. 18);
- remove the valve;
- remove the knob extension (item 7 in Fig. 18) and install it on the new valve;
- unscrew the extensions, curves and unions from the faulty valve and install them on the new one;
- follow the procedure in reverse to fix the new part.

**Fig. 18**

1. Pilot flame pipe
2. Pilot flame pipe union
3. Operating thermostat electrical connections
4. Thermopile electrical connections
5. Burner body
6. Extension
7. Thermocouple union
8. Thermocouple
9. Top flange
10. Upper flange fixing screws
11. Bottom flange
12. Gas outlet union
13. Gas outlet pipe extension
14. Gas inlet union
15. Gas inlet pipe extension
- 16.

7.7 Replacing the operating thermostat

- remove the right angle and the front panel as indicated in the related paragraphs;
- loosen the fixing screws (item 6 in Fig. 19) of the plates locking capillary tubes (item 5 in Fig. 19);
- slide the bulb (item 1 in Fig. 19) from the holder by taking out the spring clip (item 3 in Fig. 19);

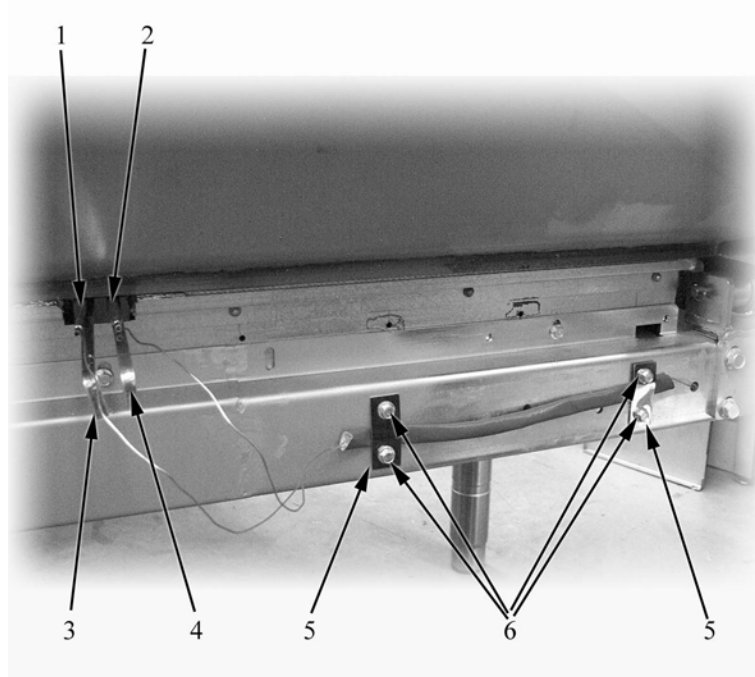


Fig. 19

1. Operating thermostat bulb
2. Safety thermostat bulb
3. Spring clip of the operating thermostat bulb
4. Spring clip of the safety thermostat bulb
5. Plates locking capillary tubes
6. Plate fixing screws

- disconnect the electrical connections (item 1 in Fig. 20);
- remove the knob;
- unscrew the fixing screws of the thermostat (item 2 in Fig. 20) and remove it (item 3 in Fig. 20);

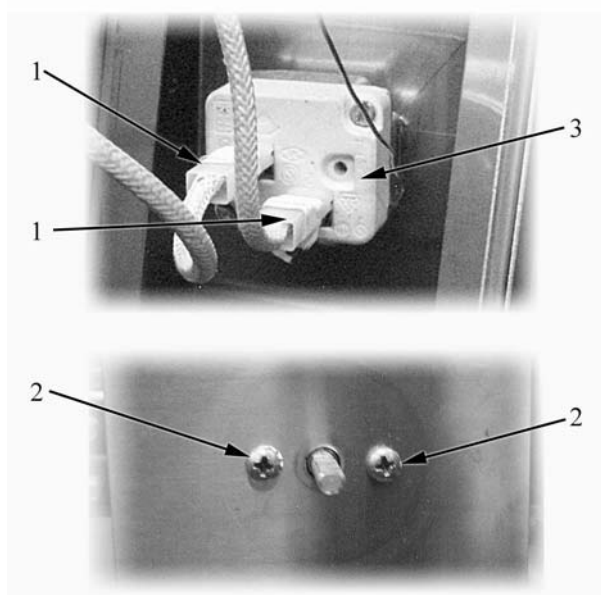


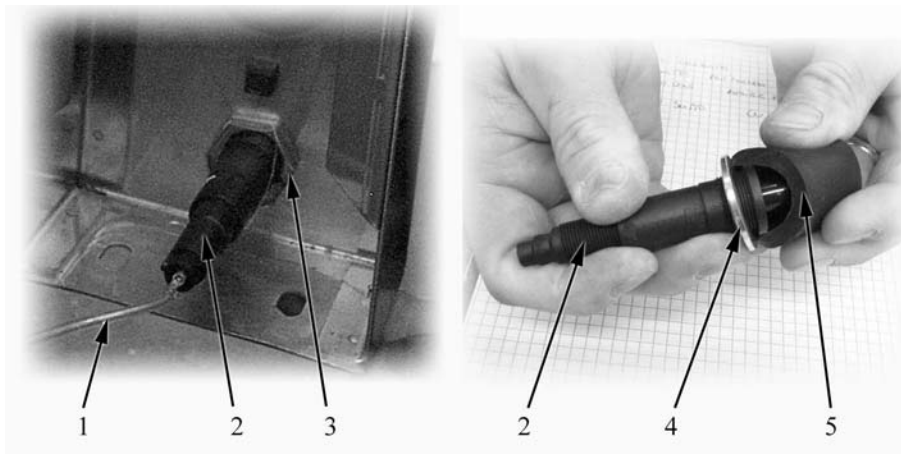
Fig. 20

1. Electrical connections
2. Thermostat fixing screws
3. Operating thermostat

- follow the procedure reverse for fixing the new part in place, taking care to place the bulb in its housing.

7.8 Replacing the piezoelectric ignition device

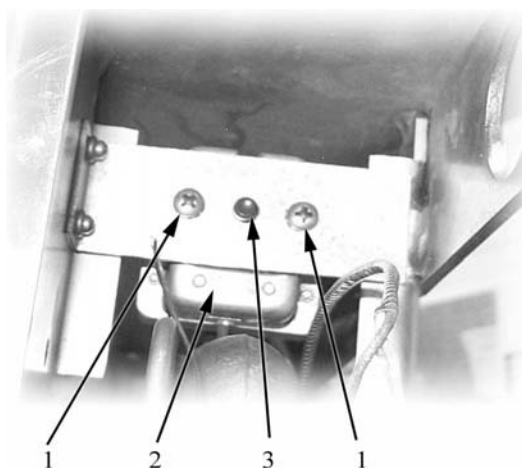
- Remove the right angle as indicated in the related paragraph;
- after disconnecting the ignition lead (item 1 in Fig. 21), unscrew the fixing nut (item 3 in Fig. 21) inside the angle;
- remove the ignition device (item 2 in Fig. 21);
- slide off the washer (item 4 in Fig. 21) and the cap (item 5 in Fig. 21);
- follow the procedure in reverse to fix the new part taking care to place the washer so the shoulder is on the angle side.

**Fig. 21**

1. Ignition lead
2. Piezoelectric ignition device
3. Device fixing nut
4. Washer
5. Cap

7.9 Replacing the safety thermostat

- remove the right angle and the front panel as indicated in the related paragraphs;
- loosen the fixing screws (item 6 in Fig. 19) of the plates locking capillary tubes (item 5 in Fig. 19);
- slide the bulb (item 2 in Fig. 19) from the holder by taking out the spring clip (item 4 in Fig. 19);
- unscrew the fixing screws of the thermostat (item 1 in Fig. 22) and remove it (item 2 in Fig. 22);

**Fig. 22**

1. Thermostat fixing screws
2. Safety thermostat
3. Reset button

- unweld the soldered wires;
- connect the new safety thermostat by tinning the wires unwelded previously;
- follow the procedure reverse for fixing the new part in place, taking care to place the bulb in its housing.

7.10 Resetting the safety thermostat

To reset the safety thermostat, proceed as follows:

- Remove the right angle as indicated in the related paragraph;
- press the reset button (item 3 in Fig. 22) until you hear a metal click;
- follow the procedure in reverse to fix the removed parts.

7.11 Replacing the water filling valve

- remove the right angle and the right side as indicated in the related paragraphs;
- unscrew the fixing nut of the water column extension (item 2 in Fig. 23);
- lift the drain valve (pos. 2 in Fig. 1);
- unscrew the lock nut from the water column extension and slide the drain valve from the top;
- unscrew the water column extension from the faulty drain valve and replace it on the new part;
- replace it and follow the procedure in reverse to fix the new one in place.

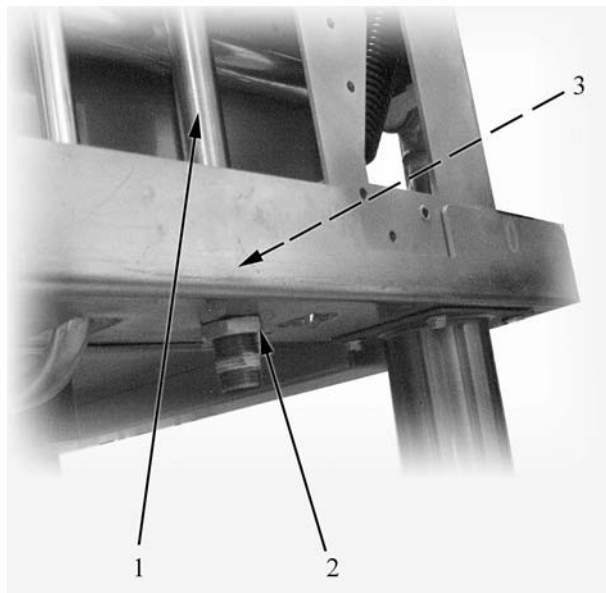


Fig. 23

1. Water column extension
2. Fixing nut of the water column extension
3. Fixing lock nut of the water column extension

7.12 Replacing the cover spring

- Remove the top as indicated in the related paragraph;
- lift the cover and prop it so to avoid the it can land;
- loosen the fixing nut (item 3 in Fig. 24) of the right or left spring tie (item 2 in Fig. 24) according to the spring to be replaced, until it is released completely;
- lower the cover;

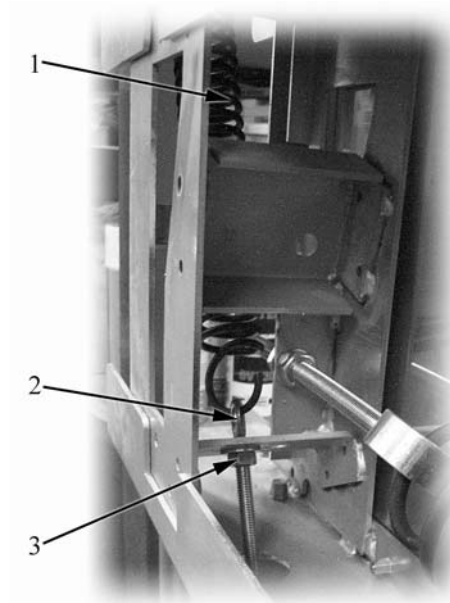


Fig. 24

1. Left spring
2. Spring tie
3. Fixing nut

- loosen the fixing screws (item 2 in Fig. 25) of the right or left cover support bracket (item 3 in Fig. 25) according to the spring to be replaced;
- lift the cover and release the spring;

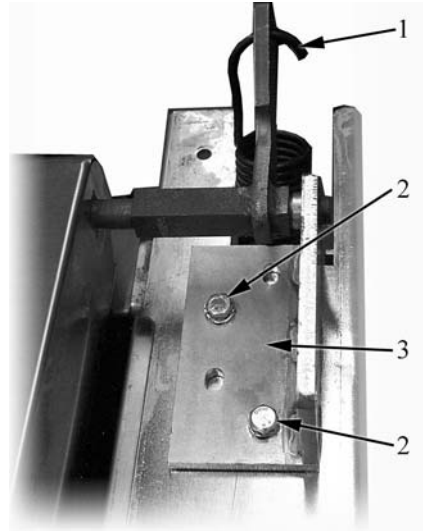
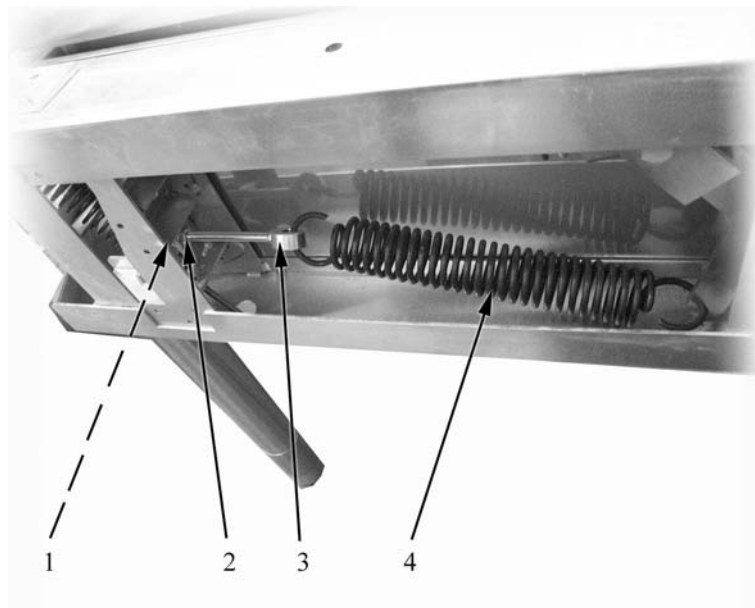


Fig. 25

1. Right spring
 2. Bracket fixing screws
 3. Cover support bracket
- follow the procedure in reverse to fix the new part.

7.13 Replacing the lifting device of the spring

- Remove the left side as indicated in the related paragraph;
- lift the tank;
- loosen the fixing nut and lock nut (item 2 and item 1 in Fig. 26) of the spring tie (item 3 in Fig. 26) ;
- unlock the spring;
- follow the procedure in reverse to fix the new part.

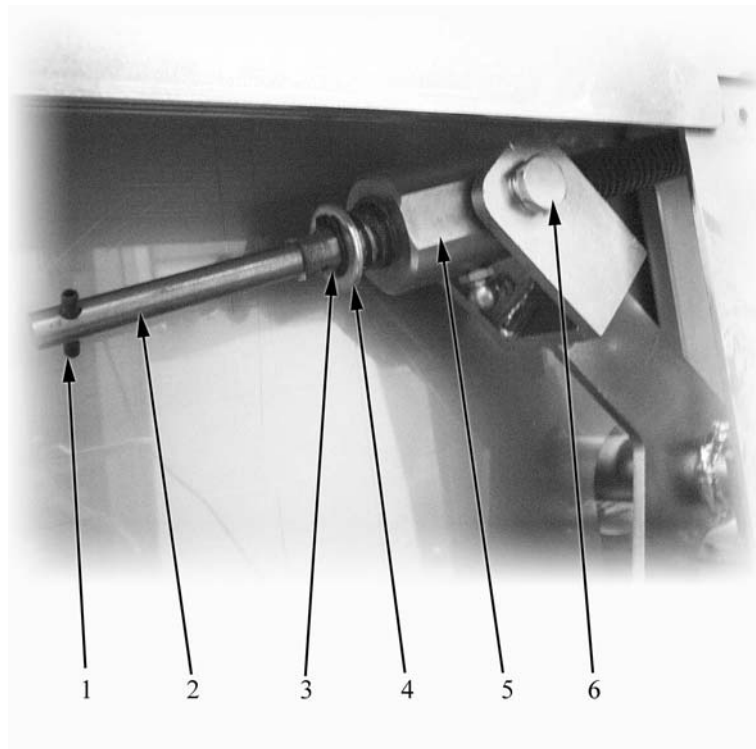
**Fig. 26**

1. Fixing lock nut
2. Fixing nut
3. Spring tie
4. Spring

7.14 Replacing the trapezoidal female screw

Lower the tank completely!

- Remove the left angle and the left side as indicated in the related paragraphs;
- take off the plug (item 1 in Fig. 27) from the rod (item 2 in Fig. 27);
- remove the Seger ring (item 3 in Fig. 27);
- remove the washer (item 4 in Fig. 27);
- unscrew the fixing screws of the trapezoidal female screw (item 6 in Fig. 27);
- unscrew the trapezoidal female screw from the lifting rod (item 5 in Fig. 27);
- replace it and follow the procedure in reverse to fix the new one in place.

**Fig. 27**

1. Plug
2. Lifting rod
3. Seeger ring
4. Washer
5. Trapezoidal female screw
6. Bushing fixing screws

7.15 Periodic greasing of the mechanical parts for tank movements

To keep the lifting and lowering devices of the tank in good conditions, it is necessary to carry out a periodic maintenance of these devices. The frequency shall be defined on the basis of operation number of the lifting/lowering tank.

- Lift the tank;
- remove the left angle as indicated in the related paragraph;
- grease the point indicated in item 1 in Fig. 28.
- apply a light coating of grease on the internal thread in item 2 in Fig. 28.

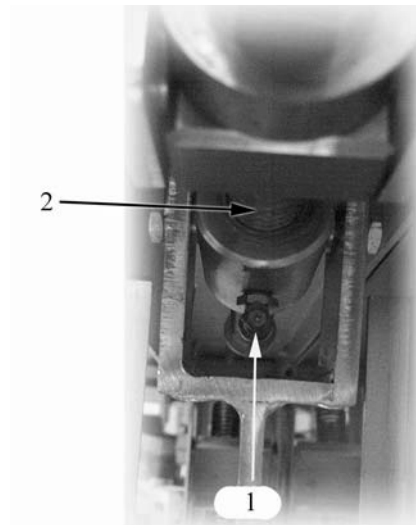


Fig. 28

1. Grease cup
2. Internal thread

After performing any repair or service operation for any gas parts, you should check for leaks at joints and pipe fittings. In order to check for any leaks, use soapy water or a specific leak detector (spray).

Troubleshooting

8. Troubleshooting

The operator must not do any maintenance work to the parts in this appliance. Maintenance should be carried out by an authorized technician.

TROUBLE	CAUSE	MAINTENANCE	
		FOR THE USER	OR THE TECHNICAL SUPPORT SERVICE
Pilot flame won't light:	pressure drop in gas supply pipe;	contact the gas utility company;	
	the ignition plug is not securely fixed, or the connection with the cable is wrong;		check the connection;
	ignition plug insulator damaged;		replace the plug (see the chapter, Replacing the ignition plug);
	clogged nozzle;		clean the pilot flame nozzle or replace it (see chapter Replacing the pilot flame nozzle);
	gas valve damaged;		replace the gas valve
After releasing the knob, the pilot flame goes out:	the thermocouple is not sufficiently heated by the pilot flame;	repeat the ignition procedure;	
	thermocouple faulty;		replace it (see the chapter, Replacing the thermocouple);
	gas valve faulty;		replace the gas valve
Pilot flame stays lit, but main burner won't light:	The thermocouple on the pilot light is not hot enough;	It takes a minute after the pilot light is switched on for the thermocouple to reach its operating temperature and thus allow the main burner to be switched on;	
	pressure drop in gas pipe;	contact the gas utility company;	
	burner nozzle is clogged;		clean the burner nozzle (see chapter, Replacing the main burner nozzles);
	thermopile damaged		replace the thermopile
The temperature does not adjust	Defective wiring or components;		Check the electrical continuity of the circuit as a whole, including: (thermocouple , operating thermostat, safety thermostat, gas valve winding). The electrical circuit is powered with millivolts; any anomalous electrical resistance can compromise its operation;
	operating thermostat damaged		replace the operating thermostat

9. Spare parts

Outer parts.....	49
Internal parts 1.....	51
Internal parts 2.....	53
Internal parts 3.....	55

9.1 Voltage codes

Voltage	Voltage code
A	3/N/PE~400/230V 50Hz
B	~250V 16A 50Hz
C	3/N/PE~380/220V 50Hz
D	3/PE~200V 50-60Hz
F	2/PE 220-240V 50Hz
G	3/N/PE~415/240V 50Hz
H	3/PE~230V 50Hz
I	3/PE~220V 60Hz
J	3/PE~380 50Hz
K	3/PE~400V 50Hz
L	3/PE~415V 50Hz
M	3/PE~440V 60Hz
N	3/PE~460V 60Hz
O	3/PE~480V 60Hz
P	1/N/PE~220-240V 50Hz
R	2/PE~220-230V 60Hz
S	3/N/PE~400/230V 50Hz
T	3/PE~230V 60Hz
U	1/N/PE~100V 50-60Hz

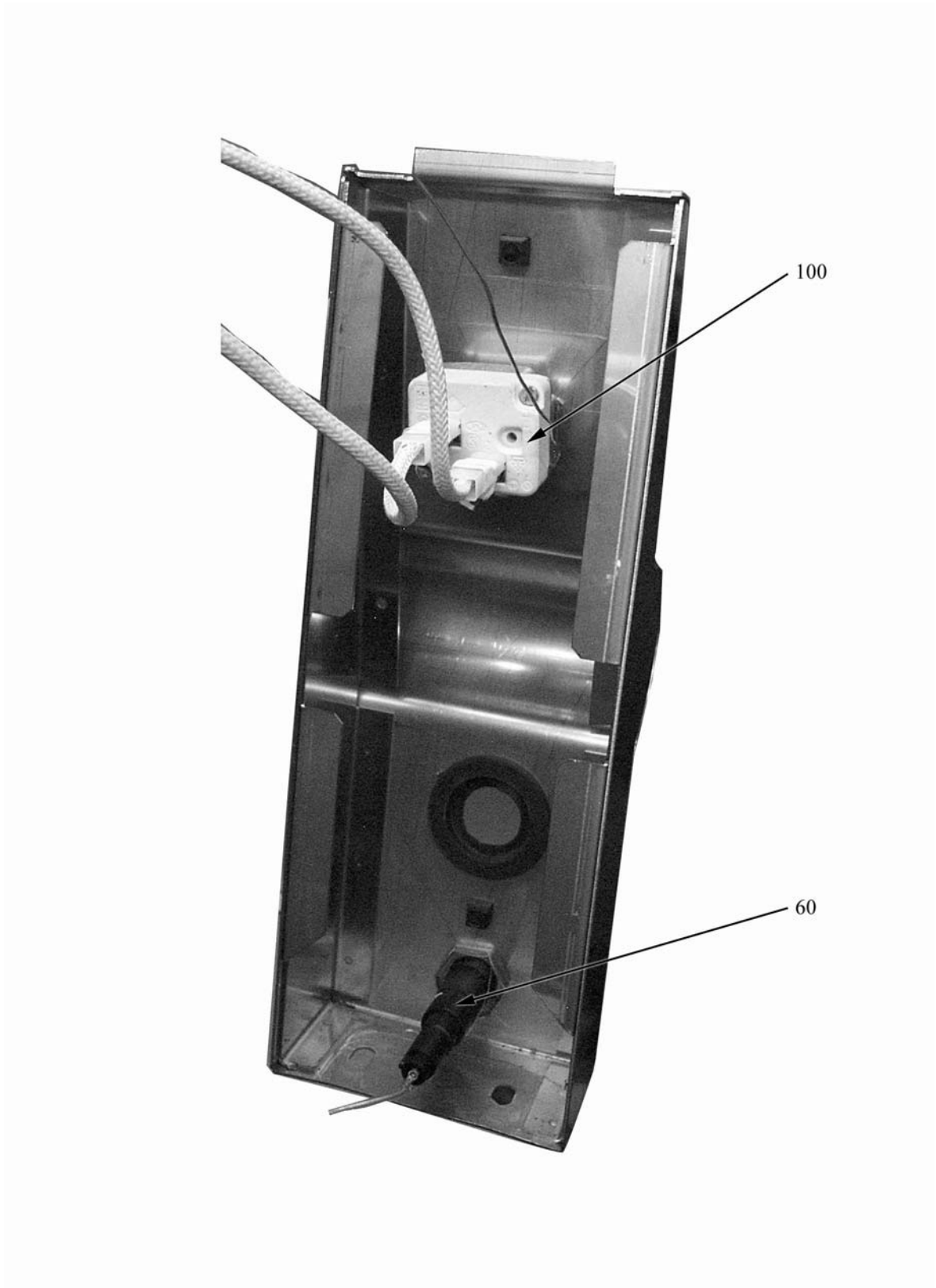
9.2 Product codes

Product code	Full name
Type codes	
100	7BR/G100
100S	7BRS/G100
105	7BR/G105
105S	7BRS/G105



ID	Type	Description	P-code
Module:Outer parts			
10		Water spout	826900260
20		Knob, thermostat	824710270
30		Knob	6A050020
40		Cap	826630420
50		Washer	822160540
60		Piezoelectric ignition	6A041105
70		Handle	826430061
80		Foot	826490381
90		Handwheel	41826900620
270		Knob gasket	2519490

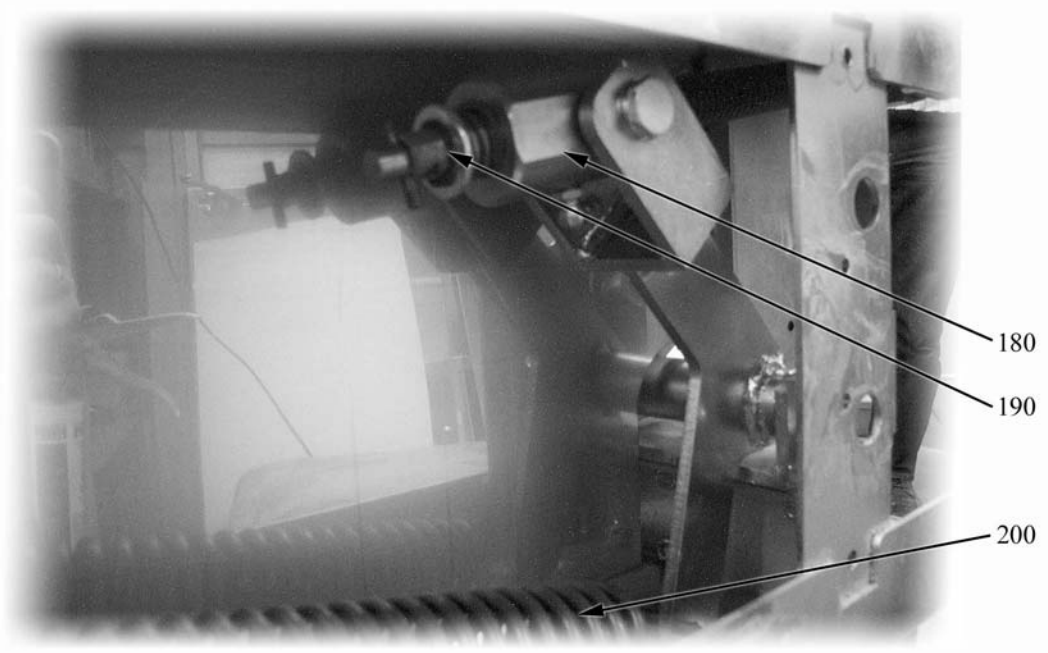
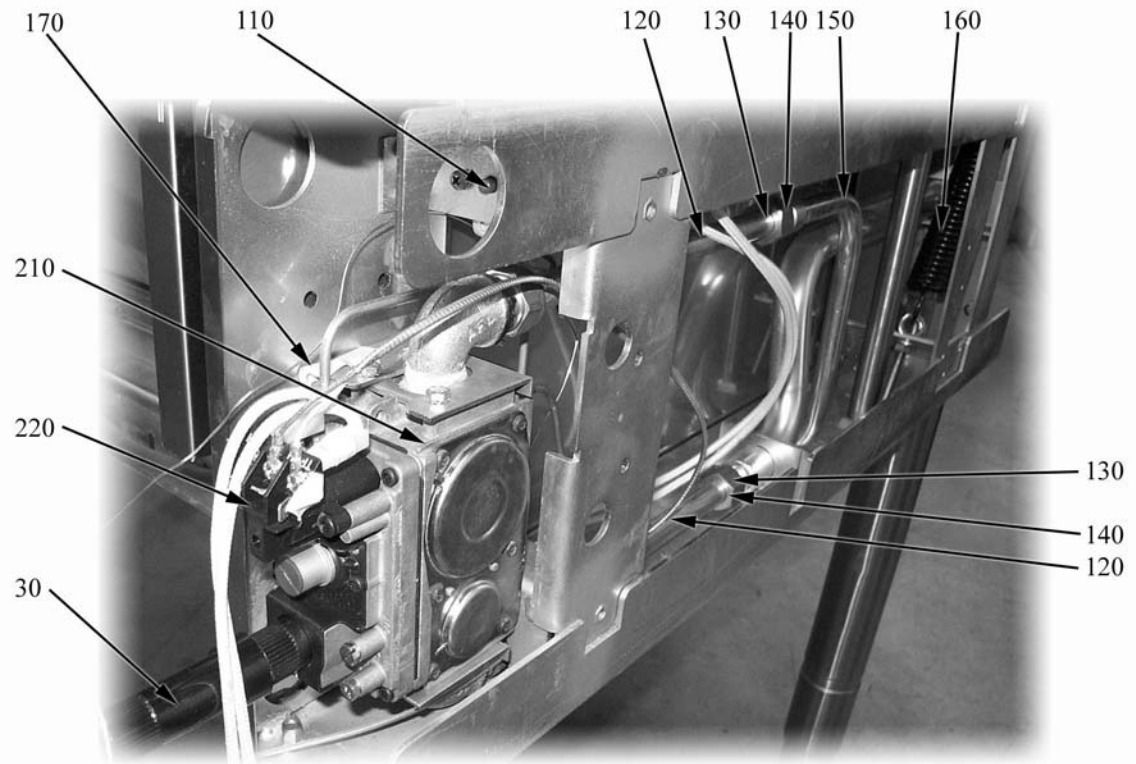
100=7BR/G100, 100S=7BRS/G100, 105=7BR/G105, 105S=7BRS/G105



Spare parts

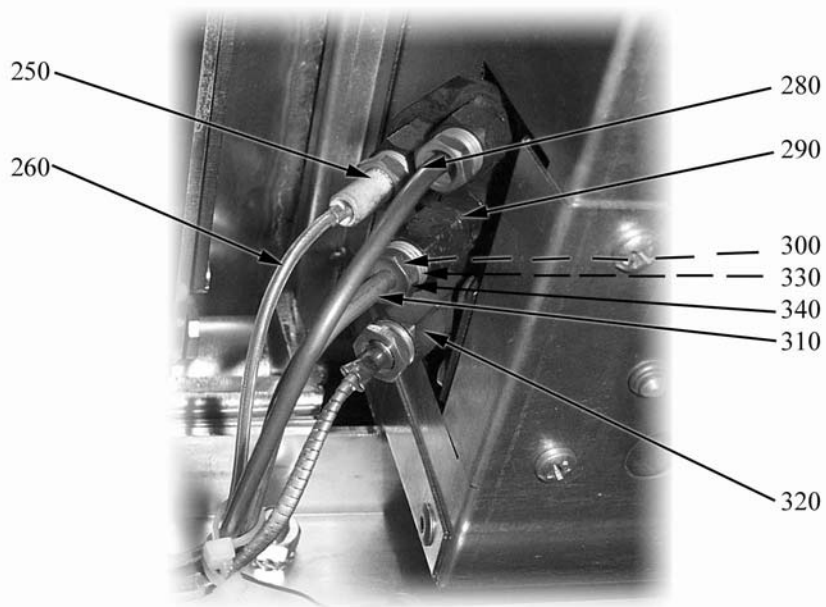
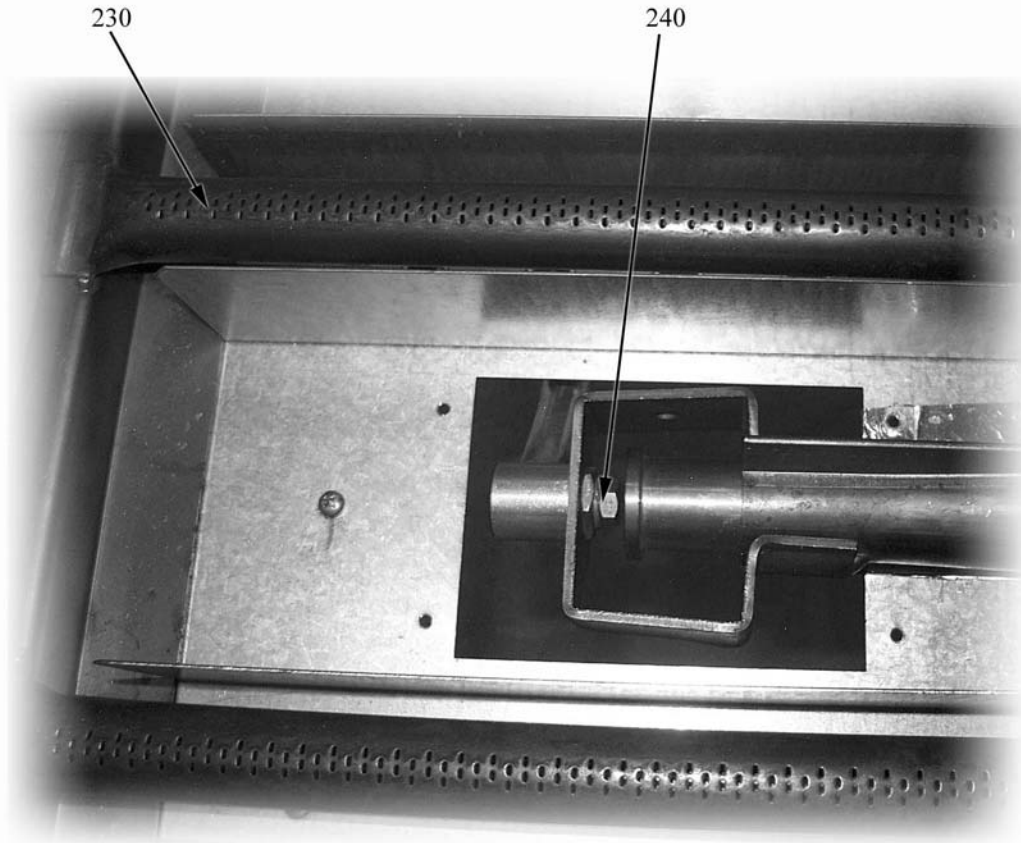
ID	Type	Description	P-code
Module:Internal parts 1			
60		Piezoelectric ignition	6A041105
100		Control thermostat	826630191

100=7BR/G100, 100S=7BRS/G100, 105=7BR/G105, 105S=7BRS/G105



ID	Type	Description	P-code
Module:Internal parts 2			
110		Safety thermostat	826630010
120		Pipe	41823560280
130		Ogive	9000270
140		Nut	6A016400
150		Pipe	823560262
160		Spring	823210031
170		Pipe fitting + ogive	6A011608
180		Trapezoidal female screw	822160162
190		Ring Seger	8227979150
200		Spring	823210010
210		Gas solenoid valve	826920090
220		Thermopile	826920100

100=7BR/G100, 100S=7BRS/G100, 105=7BR/G105, 105S=7BRS/G105



ID	Type	Description	P-code
Module:Internal parts 3			
230		Burner	826390063
240		Nozzle 190	41822140050
-		Nozzle 165	822140050
-		Nozzle 310	418220140320
-		Nozzle 265	41822140710
250		Ignition electrode	6A013301
260		Spark plug cable	2510698
280		Thermocouple	826920120
290		Pilot burner	826920110
300		Nozzle 51	822140350
300		Nozzle 25	822140370
300		Nozzle 30	822140360
300		Nozzle 75	822140520
310		Nozzle BA 198	823560300
320		Thermopile	826920100
330		Ogive	822450380
340		Pipe fitting	822450040

100=7BR/G100, 100S=7BRS/G100, 105=7BR/G105, 105S=7BRS/G105

10. Technical specifications

Connection diagrams 58

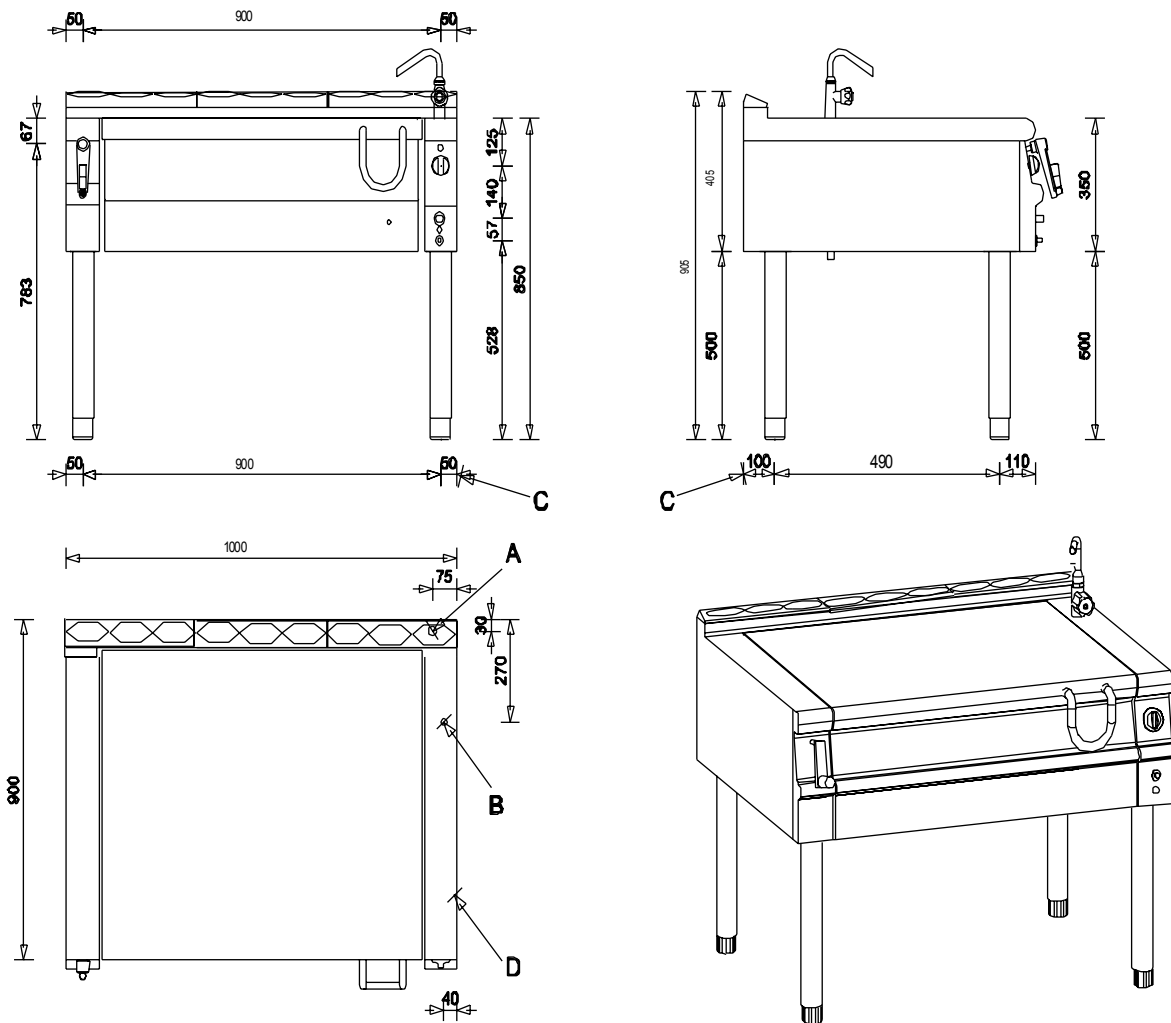
Installation and connection drawings. 60

Technical specifications table..... 61

Technical specifications

827LE0075: legend of the wiring diagram 827SC0075			
Letter code	Codes	Descriptions	Specifications
S1	6A046000	SWITCH	1F
B1	826630191	CONTROL THERMOSTAT	60 - 320°C -1F
B16	826630130	SAFETY THERMOSTAT	360°C - 1F
E1	826650050	LINE PILOT LAMP	400V 150°C
E11	6A038506	OPARATION PILOT LAMP	400V 150°C
B31	826630310	LIMIT SWITCH	
Q1	826630300	CONTACTOR	230V - 25A
E51-52-53-54-55-56	826620090	HEATING ELEMENT	1200W - 230W

Installation drawing 7BR/G100, 7BR/G105



	DESCRIPTION
A	Gas connection
B	Cold water inlet
C	Distance between feet
D	Technical plate

Technical specifications

Item	Type	Specification
Volume with package		0.89 m ³
Total weight		154 Kg
Cooking pan		Acciaio inox / Compound
Tank dimensions (LxPxA)		730 x 400 x 200mm
Inner tank capacity		57 l
Gas power		14 kW
Gas feeding pipes section		3/4" GC ISO R7
Amount of air necessary for the combustion		518 m ³ /h
Construction type		A1

100=7BR/G100, 100S=7BRS/G100, 105=7BR/G105, 105S=7BRS/G105

