INSTRUCTION MANUAL
FOR INSTALLATION, MAINTENANCE AND USE

RECTANGULAR BRATT PANS
GAS TYPE

“BR8G080I - BR8G080I.M”
“BR9G090I – BR9G090I.M”
“BR1G120I – BR1G120I.M”
“BR1G150I – BR1G150I.M”
“BR1G160I – BR1G160I.M”
“BR1G200I – BR1G200I.M”

1 GENERAL REMINDERS AND NOTES 4
1.1 Introduction 4
1.2 Simbols and pictograms 4
1.3 General reminders 4
1.4 Construction 5
1.5 Laws, technical prescriptions and directives 6
1.6 Special requirements for the installation site 6
1.7 Technical data 7
1.8 Table-Categories; Gas inlet pressures 8
1.9 Gas data 10
2 POSITIONING, INSTALLATION AND MAINTENANCE 11
2.1 Positioning 11
2.2 Installation 11
2.2.1 Electrical connections and equipotential bonding (modd.BR.G.M) 11
2.2.2 Connection to waterworks 12
2.2.3 Gas connection procedures 12
2.2.4 Checking the operation of the gas system 13
2.2.5 Control of the gas inlet pressure 13
2.3 Commissioning and testing 14
2.4 Maintenance of the appliance 14
2.4.1 Periodic maintenance 15
2.4.2 Possible failures and their elimination 16
3 CONVERSION TO OTHER TYPES OF GAS 17
3.1 Replacement of injectors for main burners 17
3.2 Regulation of primary air flow 17
3.3 Replacement of injectors for pilot burner 17
4 USE 18
4.1 Warnings and hints for user 18
4.2 Instructions for use 18
4.2.1 Switch on, start of cooking and switch off mod. BR.G 19
4.3 Emptying the cooking pan: 20
4.3.1 Optional by-pass manual tilting of the cooking tank (MODD.BR..M) 20
5 CLEANING AND CARE 21
5.1 Cleaning and care of the appliance 21
5.1.1 Daily cleaning 21
5.2 Special procedures in case of prolonged inactivity 21
5.3 Special procedures in case of failures 21
5.4 How to proceed, if … 22
6 FIGURES AND DETAILS 23
6.1 LAYOUT CONNECTIONS BR8G080 23
6.2 LAYOUT CONNECTIONS BR9G090 24

6.3 LAYOUT CONNECTIONS BR1G120-BR1G150 25
6.4 LAYOUT CONNECTIONS BR1G160-BR1G200 26
6.5 FIG. GAS VALVE BR.G 27
6.6 FIG. MAIN BURNER – PRIMARY AIR REGULATION 28
6.7 FIG. PILOT BURNER BR.G 29
6.8 FIG. GAS VALVE BR.G 30
6.9 WIRING DIAGRAM BR.G..M 31
6.10 FIG. CONTROLS BR.G 32
6.11 FIG. CONTROLS BR.G.M 33
6.12 FIG. DETAILS OF COMMANDS 34

1 GENERAL REMINDERS AND NOTES

1.1 INTRODUCTION

The heads of business units, where the unit will be installed, have an obligation, in accordance with the regulations, read carefully the contents of this manual and read the operators and maintainers involved for parts that they compete.

This manual includes all the information necessary to ensure that our equipment can be used properly and safely.
Keep this manual with care, so that it is always available to all users of the machine!

The manufacturer does not assume any responsibility or warranty commitment for accidents and damage due to non-compliance with the requirements or installation or maintenance not in accordance with safety standards.
Also applies in case of improper use of the appliance by the operator.

1.2 SIMBOLS AND PICTOGRAMS

NOTES!
Report a recommendation or information deemed of particular importance.

ATTENTION!
Report an operation or a dangerous situation.

ATTENTION!
Report a requirement or an obligation.

ATTENTION!
Report the prohibition of operation.

1.3 GENERAL REMINDERS

- Read the warnings contained in this manual carefully as they provide important information concerning safety during the installation, use and maintenance of the appliance.
- Keep these instructions carefully!
- Only personnel trained for its specific use should use the equipment.
- Keep the appliance under control during use.

- The appliance should be used only for the purpose for which it has been specifically designed; other uses are improper and hence dangerous.
- During operation surfaces can become hot and require special operation.
- Unplug the appliance in case of failures or improper operation.

– Apply exclusively to a service centre for repairs or maintenance.
– Any important information about the appliance required for technical service is contained in the technical data plate (see figure “View of appliance”).
– If technical assistance is required, the trouble must be described in as much detail as possible, so that a service technician will be able to understand the nature of the problem.
– Gloves should be worn to protect the hands during installation and maintenance operations.

	Follow the fire prevention regulations very carefully.
	Not used absolutly as frying mode.

1.4 CONSTRUCTION

– Main structure in steel with adjustable height feet.
– Exterior and top finish entirely made of stainless steel .

– Stainless steel vat lid, with bottom in INOX (AISI 304) in model (BR8.080I ; BR9.090I ; BR1.120I ; BR1.150I ; BR1.160I ; BR1.200I) .

– Lid in stainless steel, hinged and spring balanced in all opening positions.
– Heating of the vat by burners in stainless steel, resistent to mechanical stress and thermal shocks.
– Gas is supplied through a multiple thermostatic valve.
– The main burner is lit by means of the pilot .
– Switch off the main burner when the pan is overturning
– Hand tilting of the pan (modd.BR.G…)..
– Motor tilting pan (modd.BR.G…M).
– Optional (cod.BAM0010) by-pass motorized tilting (modd.BR.G ... M).

The appliance is equipped with:

– Thermostatic gas valve.
– Pilot burner ignition button (modd.BR.G ...).
– Ignition of the pilot burner incorporated in the gas valve (modd.BR.G ...M).
– Control knob for temperature regulation.
– Filling of the pan by means of a tap placed on the front panel.
– Tilting handwheel (modd.BR.G…).
– Motorized tilting selector (modd.BR.G ... M)

1.5 LAWS, TECHNICAL PRESCRIPTIONS AND DIRECTIVES

When installing the appliance it is necessary to follow and comply with the following regulations:

- current regulations on the matter;
- any hygienic-sanitary regulations concerning cooking environments;
- municipal and/or territorial building regulations and fire prevention prescriptions;
- standards for the use of combustible gas;
- standards for gas-fired systems utilizing on-tap or liquid petroleum gas;
- standards relating to gas-fired cooking appliances and similar equipment used large-scale catering. Safety requirements;
- standards relating to gas systems for appliances used in professional kitchens and communal facilities
- the regulations of the gas supply company or agency;
- current accident prevention guidelines;
- electricity board regulations concerning safety;
- the regulations of the electrical power supply company or agency;
- any other local prescriptions.

1.6 SPECIAL REQUIREMENTS FOR THE INSTALLATION SITE

- The appliance belongs to the installation class A1 (no direct connection of a chimney of flue exhaust system is required), so it is very important for the environment in which it is installed to be well-aired and provided with all the safety openings prescribed for its power.
- In addition, it is good policy to locate the appliance under an extractor hood so that cooking vapours can be removed rapidly and continuously.
- The gas supply system must be equipped with a rapid on off tap approved for the purpose.
- Current regulations require the installation of a multiple pole switch between the appliance and the electrical power supply; the switch must have a contact gap of least 3 mm on each pole.
- This appliance requires one water connection. The line must be fitted with an on-off valve.

	The electrical isolating switch and the water shutoff valves must both be located near to the appliance, within easy reach for the user.
	Follow the fire prevention regulations very carefully.

1.7 TECHNICAL DATA

		BR8G080	BR9G090	BR1G120	BR1G150	BR1G160	BR1G200
TECHNICAL DATA (DIMEMSIONS)							
Equipment dim.A	mm	800	900	1200	1200	1600	1600
Equipment dim.B	mm	3	900	900	900	900	900
Equipment dim.H	mm	900	900	900	950	900	950
Equipment dim.H2	mm	1630	1630	1630	1680	1630	1680
TECHNICAL DATA (FUNCTIONALITY)							
Pan dimension A	mm	698	798	1098	1098	1498	1498
Pan dimension B	mm	564	564	564	564	564	564
Pan dimension H	mm	200	200	200	250	200	250
Pan area	dm²	39	45	62	62	84	84
Overvall volume	lt	81	92	127	150	162	205
Useful volume	lt	60	70	100	128	132	170
Temperature	°C	45÷295					
TECHNICAL DATA (INSTALLATION)							
Gas power	kW	20	20	30	30	40	40
Gas connection	Ø"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Water pressure	kPa	50÷300					
Hot water inlet	Ø"	1/2"					
Latent heat emission	W/kW	450					
Direct heat emission	W/kW	450					
Moisture emission	g/h /kW	630					
Sound level	dbA	< 70					
modd.BR.G...M							
Electric power	kW	0,2					
Voltage/Input (standard)**	V	220-240 V 1N 50/60Hz					
Cable connection ***	mm²	3 X 1,5					
TECHNICAL DATA (STORAGE/MOVEMENT)							
Packaging dim.A	mm	1070	1070	1300	1300	1740	1740
Packaging dim.B	mm	870	970	1050	1050	1050	1050
Packaging dim.H	mm	1270	1270	1220	1290	1280	1280
Volume	m³	1,215	1,355	1,68	1,75	2,34	2,34
Net weight	kg	144	158	217	222	312	320
Gross weight	kg	169	188	255	260	354	362

**Verify on data plate - ***Cable for standard tension

1.8 TABLE-CATEGORIES; GAS INLET PRESSURES

APPLIANCE CATEGORY	PN NOMINAL MAIN PRESSURE	COUNTRY
I2H	20 mbar	NO
I2EK	20; 25 mbar	NL
II2EK3B/P	20/25, 28-30 mbar	NL
I2E	20 mbar	LU, PL
I3B/P	28-30 mbar	CY, MT, NO, NL
I3B/P	37 mbar	PL
I3+	28-30/37 mbar	LU
II2H3B/P	20, 28-30 mbar	DK, SE, FI, BG, EE, LV, LT, CZ, SI, TR , HR, RO
II2H3B/P	20, 50 mbar	AT, CH
II2H3+	20, 28-30/37 mbar	ES, GB, GR, IE, IT, PT, SK
II2E+3+	20/25, 28-30/37 mbar	BE, FR
II2ELL3B/P	20, 50 mbar	DE
II2HS3B/P	25, 28-30 mbar	HU
II2HS3B/P	25, 50 mbar	HU
II2ELs	20; 13 mbar	PL
II1a2H	8, 20 mbar	CH, IT
III1a2H3B/P	8, 20, 28-30 mbar	DK
III1ab2H3B/P	8, 20, 28-30 mbar	SE

1	2	3	4	5
Type of Gas	**Pn nominal main Pressure**	**Operation permissible** if pressure **is in the range**:	**Operation non permissible** if pressure **is lower than:**	**Operation non permissible** if pressure **is higher than:**
	mbar	**mbar**	**mbar**	**mbar**
SECOND FAMILY GASES				
G20	**20**	**17÷25**	**17**	**25**
	25	**20÷30**	**20**	**30**
G25	**20**	**17÷25**	**17**	**25**
	25	**20÷30**	**20**	**30**
G25.1	**25**	**20÷30**	**20**	**30**
G25.3	**25**	**20÷30**	**20**	**30**
G2.350	**13**	**10÷16**	**10**	**16**
THIRD FAMILY GASES				
G30/G31	**28-30**	**25÷35**	**25**	**35**
	28-30/37	**20÷35 / 25÷45**	**20 / 25**	**35 / 45**
	37	**25÷45**	**25**	**45**
	50	**42,5÷57,5**	**42,5**	**57,5**

1.9 GAS DATA

			BR8G080	BR9G090	BR1G120-150	BR1G160-200
Rated heating power		kW	20	20	30	40
Reduced power		kW	ON-OFF	ON-OFF	ON-OFF	ON-OFF
COMSUMPTION						
GAS	Pn					
G20	20 mbar	m³/h	2,12	2,12	3,17	4,23
G20	25 mbar	m³/h	2,12	2,12	3,17	4,23
G25	20 mbar	m³/h	2,46	2,46	3,69	4,92
G25.1	25 mbar	m³/h	2,46	2,46	3,69	4,92
G25.3	25 mbar	m³/h	2,46	2,46	3,69	4,92
G2.350	13 mbar	m³/h	2,94	2,94	4,41	5,88
G30	28-30 mbar 28-30/37 mbar 37 mbar 50 mbar	kg/h	1,58	1,58	2,37	3,15
NOZZLES (PILOT)						
GAS	Pn	Nr.				
G20	20 mbar	Ø 1/100 mm	1x340 (51)	1x340 (51)	1x415 (51)	2x340 (51)
G20	25 mbar	Ø 1/100 mm	1x325 (51)	1x325 (51)	1x390 (51)	2x325 (51)
G25	20 mbar	Ø 1/100 mm	1x380 (51)	1x380 (51)	1x450 (51)	2x380 (51)
G25.1	25 mbar	Ø 1/100 mm	1x360 (51)	1x360 (51)	1x450 (51)	2x360 (51)
G25.3	25 mbar	Ø 1/100 mm	1x360 (51)	1x360 (51)	1x435 (51)	2x360 (51)
G2.350	13 mbar	Ø 1/100 mm	1x480 (80)	1x480 (80)	1x590 (80)	2x480 (80)
G30/G31	28-30 mbar 28-30/37 mbar	Ø 1/100 mm	1x225 (30)	1x225 (30)	1x280 (30)	2x225 (30)
G30/G31	37 mbar	Ø 1/100 mm	1x210 (30)	1x210 (30)	1x260 (30)	2x210 (30)
G30/G31	50 mbar	Ø 1/100 mm	1x195 (30)	1x195 (30)	1x245 (30)	2x195 (30)
PRIMARY AIR DISTANCE						
GAS	Pn	H				
G20	20 mbar	mm	14	14	10	14
G20	25 mbar	mm	14	14	10	14
G25	20 mbar	mm	12	12	10	14
G25.1	25 mbar	mm	12	12	12	12
G25.3	25 mbar	mm	12	12	10	12
G2.350	13 mbar	mm	10	10	10	10
G30/G31	28-30 mbar 28-30/37 mbar	mm	20	20	18	20
G30/G31	37 mbar	mm	20	20	18	20
G30/G31	50 mbar	mm	20	20	15	20

2 POSITIONING, INSTALLATION AND MAINTENANCE

2.1 POSITIONING

- Remove all the packaging and check that the appliance is in perfect conditions. In case of visible damage, do not connect the appliance and notify the sales point immediately.
- Remove the PVC protection from the panels.
- Dispose of packaging according to regulations. Generally material is divided according to composition and should be delivered to the waste disposal service.
- Maintain a distance of 3 cm between the back (chimney) of the appliance and the wall. There are no particular prescriptions regarding side distances from other appliances or walls, however it is advisable to leave enough space in case of maintenance and/or repairs. It is advisable to fit a suitable heat insulation if the appliance is in direct contact with inflammable walls.
- The appliance must stand level. Small differences in level can be eliminated by screwing or unscrewing the adjustable feet: A significantly uneven or sloping stance can affect the operation of the appliance adversely.
- The device can be put in place or as a single unit or in series with other equipment.

2.2 INSTALLATION

	Only qualified technicians must perform the installation, maintenance and test of the appliance.
	Before connecting any parts of the appliance to supplies, make sure that the latter is equivalent the requirements stated in the technical data plate, if the appliance has been designed for these supplies.

2.2.1 ELECTRICAL CONNECTIONS AND EQUIPOTENTIAL BONDING (MODD.BR.G.M)

Warning! : The appliance is supplied to operate according to the power supply indicated on the data plate.

- As mentioned, the appliance must be connected to the power supply by way of a multiple pole main isolating switch and protection device that must be proportioned to the power of the appliance (1 mA per kW of rated power).
- The earthing system must be efficient.
- As this appliance is type X equipment (delivery with power cable and without plug), the other hardware needed to make the connection to the electrical power supply must be provided by the installer.
- The power cable shall be of the kind described in the paragraph “Technical data" and shall be resistant to oil (type **H05RN-F** o **H07RN-F**).
-
- The appliance must incorporate an equipotential system.

– Connect the terminal on the lower left-hand side marked with the international symbol a connector with a nominal cross section <10 mm2. All the appliances installed and the earth system of the building shall be connected like this.

ATTENTION!
Cut the tension before to make the connection and/or maintenance .

2.2.2 CONNECTION TO WATERWORKS

– Water inlet pressure must be between 50 and 300 kPa, otherwise install a pressure regulator on the line before the appliance.
– Install a cut-off valve for each supply on the line before the appliance.
– Water connections are fitted in the lower part on the left-hand side of the appliance.
– Make connections according to regulations currently in force.

2.2.3 GAS CONNECTION PROCEDURES

The choice of the gas piping depends on the diameter required for the type of gas, appliance and installation and should be performed in conformity with current regulations.

Before making the connection, thoroughly clean the gas tube.
Impurities could affect the operation of the machine.

It is recommended that the installation of a pressure regulator (one for each machine), to stabilize the pressure of the inlet gas.

The diameter of the connections is shown in "**TECNICAL DATA**"
The point of connection is shown in the "**LAYOUT CONNECTIONS**"

The gas feed plant can either be fixed or be disconnected; if flexible pipes are employed they must be made from stainless material and not be affected by corrosion.

If sealing materials are used for connections, they must be certified and approved for the purpose.

Once the appliance has been connected, carry out a leakage test on all the fittings connecting the appliance to the plant. It is advisable to use a leakage spray, otherwise treat the parts with a foam that does not produce corrosion; no bubbles should develop. Carry out the leakage test also on the rapid cut-off valve.

Flames are strictly prohibited for leakage tests!

2.2.4 CHECKING THE OPERATION OF THE GAS SYSTEM

Check that the appliance has been prepared (category and type of gas) equivalent to the family of gas available on site.
If not, it is necessary to convert the appliance to whatever is available. See the paragraph "**CONVERSION TO OTHER TYPES OF GAS**".

The operation of the appliance with its heating capacity depends on the inlet pressure and the calorific power of the gas.

The calorific power of of the gas (Hi) can be obtained from the service provider and should correspond to the following values:

GAS	Hi
G20	34,02 (Mj/m³)
G25 / G25.1 / G25.3	29,25 (Mj/m³)
G2.350	24,49 (Mj/m³)
G30	45,65 (Mj/kg)

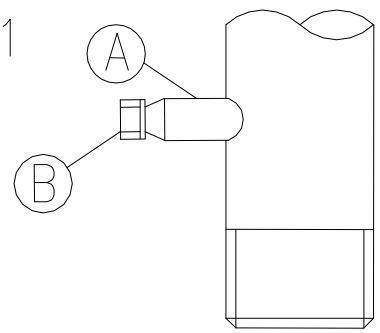
2.2.5 CONTROL OF THE GAS INLET PRESSURE

The pressure range (inlet pressure) within which the appliance is allowed to operated is stated in tab. **"TABLE-CATEGORIES; GAS INLET PRESSURE** "

The appliance shall not be operated out of the given pressure range. If pressure should differ from the above, advise the gas board or the company which has installed the system

The supply pressure is measured using a liquid pressure gauge (e.g. a U-shaped pressure gauge, minimum definition 0.1 mbar), directly **at the inlet pressure intake (FIG.1 "A")** on the gas feed pipe (See **LAYOUT CONNECTION**).

FIG.1



Before connecting the gauge remove the screw of the inlet pressure intake (**FIG.1 "B"**).

Connect the U manometer and measure the pressure with **device functioning**.

The value measured by the pressure gauge should be in the range of allowable pressure shown in the tab. **"TABLE-CATEGORIES; GAS INLET PRESSURE** ".

If the value does not match, request the intervention the gas board or the company which has installed the system

At the end tighten the screw of the inlet pressure intake.

2.3 COMMISSIONING AND TESTING

- Once all the connections have been made, the appliance and the overall installation must be checked following the directions given in this manual.
- Check in particular:
- that the protective film has been removed from the external surfaces;
- that the lower front panel removed for the electrical connection of the appliance has been fitted back into position;
- that connections have been made in accordance with the requirements and directions indicated in this manual;
- that all safety requirements in current standards, statutory regulations and directives have been met;
- that the water connections are leak-free;
- that the electrical connection has been performed according to standards.
- In addition, check that once the appliance has been installed, the power cord is neither subject to stretch nor in contact with nor surfaces.
- Now proceed to light the appliance as directed in the instructions for use.
- While the appliance is in use, voltage should not differ from the nominal voltage more than +/- 10%.
- The test report must be completed in full and submitted to the customer who should then sign in acceptance. With effect from this moment, the appliance is covered by the manufacturer's warranty.

Check that the flue gas exhaust is not clogged and that they are expelled without any hindrance.

Repeat "**CONTROL OF THE GAS INLET PRESSURE**" with the machine running.
If you have other machines connected to the main pipe of the gas, although these have to be put into operation, to perform a correct control of of the pressure of inlet gas.

2.4 MAINTENANCE OF THE APPLIANCE

All maintenance operations shall only be performed by a technically qualified service centre!

- To ensure correct and safe operation, the appliance must be inspected and serviced at least once a year only. Maintenance includes also controlling the components and tear of pipes, feeding pipes, electrical components etc.
- It is advisable to replace worn components during maintenance operations to avoid the need for other maintenance calls and unexpected failures.
- It is also advisable to apply for a maintenance contract with the customer.

2.4.1 PERIODIC MAINTENANCE

Periodic inspection will minimize machine downtime and increase operating efficiency.

FOR THE OPERATOR / FOR THE TECHNICAL SERVICE

GREASING SCREW WITHOUT END

- Turn the tank completely
- Connect a grease fitting to the connection on the lower front on the right side.
- Use the grease nipple 3/4 times.
- Move the tank to an intermediate position
- Use the grease nipple 2/3 times.
- Move the tank (cycle completely overturned and in a horizontal position) 2/3 times.

It is advisable to carry out this operation every three months, or whenever the overturn is tiring or noisy.

FOR THE TECHNICAL SERVICE

At each intervention:

- Close all the panels carefully.
- Keep the inside of the sides, where the components are present, clean and dry.
- Keep wiring and electrical connections in good condition.

CHECKS / ANNUAL INTERVENTIONS

1) Greaseing of the tilting rod bearing.

- Remove the front panel of the machine.
- Connect a grease fitting to the bearing located behind the wall from which the tilt rod comes out.
- Use the grease nipple 2/3 times.

2) Check the panels coupling, they must be perfectly closed with all screws.
3) Check water supply seal (water filling tap).
4) Verification closing terminals of electrical parts connections. Cleaning of electrical parts.

2.4.2 POSSIBLE FAILURES AND THEIR ELIMINATION

Only technically qualified service centres can perform the operations described below!

PROBLEM AND POSSIBLE CAUSE
The pilot burner does not light up: – The ignition plug is not fixed correctly or it is badly connected. – The piezoelectric igniter is damaged (modd.BR.G);. – The ignition transformer or the ignition contact are damaged, or the supply voltage is missing (modd.BR.G ... M); – There is a loss of pressure in gas supply. – The injector of the pilot burner is clogged or the gas valve is damaged. **The pilot burner turns off when the control knob or the ignition button is released:** – The gas valve knob is not pressed fully; – The thermocouple is not heated sufficiently by the pilot burner. – The gas valve is faulty. – **The pilot burner is on but the main burner does not light:** – The thermopile is damaged; – The working thermostat is damaged; – Tank out of position or limit switch failure. – The injector of the main burner is clogged or the gas valve is damaged – The outlet holes of the gas burner are clogged.. – Loss of pressure in the gas supply. **The heating vat temperature cannot be adjusted :** – The thermostat is faulty. –
– **ACCESS TO COMPONENTS AND OPERATION**
Remove power to the unit (modd.BR.G…M) To facilitate the accessibility to details is being replaced, remove the front panel, after taking out the knob to adjust the temperature, the handle of the tap water filling and the control wheel to the reversal of the cooking vessel.
Spark plug – Replace the pilot (candle integral with the pilot burner) **Termocouple** – Remove the thermocouple by loosening the fitting of the tap and loosen the closure of the pilot bracket; replace the thermocouple. Fit the new thermocouple in reverse order. **Thermopile** – Remove the thermopile from the pilot, disconnect the cables from the gas valve. Fit the new thermopile in the reverse sequence. **Gas valve** – Disconnect the valve to all gas and electric connections. – Install a new valve in the reverse sequence.

3 CONVERSION TO OTHER TYPES OF GAS

THE TRANSFORMATION TO A DIFFERENT TYPE OF GAS MEANS:
the replacement of the main burner nozzles;
primary air adjustment;
the replacement of the 'nozzle on pilot burners;
control inlet pressures

3.1 REPLACEMENT OF INJECTORS FOR MAIN BURNERS

The device must be operated with nozzles provided for its nominal heat input (See.tab. " **GAS DATA** ").

To access the nozzle remove the front panel bath.

Disconnect and remove the ramp nozzle through the mounting screws.

Use a spanner to unscrew the nozzle SW13 ((FIG. "**MAIN BURNER - PRIMARY AIR REGULATION**") and replace it with a suitable one (See.tab. " **GAS DATA** ").

All nozzles necessary for the various types of gas are contained in a bag provided with the apparatus. The nozzles are identified by marking of the diameter in 1/100 mm.

Perform a leak test (with leak detection spray or foam NON corrosive solutions) at the connection point of the ramp to the main copper

3.2 REGULATION OF PRIMARY AIR FLOW

Primary air can be considered correctly adjusted if no flame lift is ensured when the burner is cold and the injector lights when the burner is hot..

The distance "**H**" (FIG." **MAIN BURNER - PRIMARY AIR REGULATION** ") recommended for primary air regulation is indicated in table " **GAS DATA"**.

3.3 REPLACEMENT OF INJECTORS FOR PILOT BURNER

To access the pilot nozzle to remove the front panel bath.

Loosen the locking screw and replace the nozzle with the appropriate one. (See .tab. " **GAS DATA** ").

AT THE END:
Execute the control inlet pressures as described **" CONTROL OF THE GAS INLET PRESSURE "**

4 USE

4.1 WARNINGS AND HINTS FOR USER

- This manual contains all the instructions required for a proper and safe use of our appliances.
- **Keep the manual in a safe place for future consultation!**
- This appliance is for catering use, hence they must be used only by trained kitchen staff.
- The appliance must always be kept under control during use.
- **Warning! : The manufacturer shall not be held responsible for injuries or damage due to the non-compliance with safety rules or an improper use of the appliance by the operator.**
- Some improper operating conditions may even be caused by an improper use of the appliance, therefore it is important to train personnel properly.
- **All the installation and maintenance operations must be performed by fitters who are members of an official register.**
- Respect the periods required for maintenance. With this is mind, customers are recommended to sign a service agreement.
- In case of failures concerning the appliance, all outputs (electrical power supply and water) must be cut off instantly.
- In case of recurrent failures, contact a service technician.

4.2 INSTRUCTIONS FOR USE

- Before cooking with the appliance for the first time, wash the interior of the cooking vat thoroughly.

WARNING! :
Fill the cooking vat up to a maximum of 40 mm under the overflow border, according to the maximum level mark, including the food to be cooked.

WARNING! :
Loading water in the vessel through the faucet, make sure there is not hot oil in the vessel.

WARNING! :
When opening the cover, wear personal protective equipment (gloves type athermal).
Danger of burns!

4.2.1 SWITCH ON, START OF COOKING AND SWITCH OFF MOD. BR.G

- Here is a list of the procedures for a safe and correct use of the appliance.
- Open the gas valve located upstream of the appliance.

Pilot burner lighting

- Starting from position "●" press the gas-valve knob and turn leftwards to position "✸ " ; keep the gas-valve knob pressed . In the modd.BR.G..M the electric ignition is automatically switched on, while in the modd.BR.G .. press the pilot burner ignition button repeatedly. Keep the valve knob pressed for a few seconds after switching on.
- Release the gas-valve knob and control if the pilot burner is lit.
- Repeat the operation if the flame turns off.

In the event of ignition spark plug failure or power failure (in modd.BR.G ... M), pilot lighting can be done manually through the peephole on the front panel of the machine.

Start cooking - Main burner ignition and temperature regulation

- Once the pilot burner has been lit, turn the gas-valve knob towards right to the positon " ".
- Turn the thermostat knob (on the gas-valve knob) from the position "0" to the desired temperature between 45° and 295°, and that causes the automatic ignition of main burners.
- The regulation of the thermostat causes the automatic ignition and extinction of the main burner (ON/OFF regulation); only the pilot flame is lit.
- When the throttle valve knob is turned to the right to position "✸ ", the main burner is constantly switched off.

End cooking - Turning the pilot burner off

- Press gas-valve knob and turn to position "●" to turn off the pilot burner and prevent the main burner from lighting.

4.3 EMPTYING THE COOKING PAN:

– The device serves to facilitate the emptying of the tank. In the modd.BR.. this device is operated by handwheel placed on the right side in the front. By turning the hand wheel clockwise the tank rises, by turning the tank counter-clockwise lowers.
– Motorized versions (**BR..M**) the tilting of the pan is achieved by the selector (see FIG. CONTROLS - MOTOR TILTING PAN). By turning the selector to the left pan gets up, turning it to the right pan is lowered .

	ATTENTION: **The phases of rotation (lifting and back) of the cooking vessel , must be carried out and monitored by a single operator : it avoids the possibility of accidental injury to other people.**
	ATTENTION: **During the emptying of the tank , the operator must stand on the right side of the machine paying attention to the leakage of the contents from the hot pan and any sketches.** **Must enforce Furthermore , the staff present in the room , a safe distance from the perimeter of the machine of at least 2 m in both emptying phase that return of the pan.**

	As soon as the tank rises from the cooking position (horizontal), the main burner switches off automatically, while the pilot burner remains on. **Returning the tank to cooking position (horizontal) the main burner automatically turns on.**
	ATTENTION: **To avoid re-ignition of the main burner when the tank returns to cooking position (horizontal) with empty tank (possible overheating):** **Turn the thermostat to position "0" or the gas valve in position "✱",, before tilting the tank.**

4.3.1 OPTIONAL BY-PASS MANUAL TILTING OF THE COOKING TANK (MODD.BR..M).

– In the event of a power failure, or due to a motor fault, the overturning can be performed manually by inserting the supplied lever in the special peephole (see details and details- **optional BAM0010**). By turning the handwheel clockwise the bowl rises, turning it counterclockwise the bowl is lowered.

	ATTENTION: **Once performed the movement of the vessel, remove the lever for manual tipping.** **RISK OF INJURY !!!**

5 CLEANING AND CARE

5.1 CLEANING AND CARE OF THE APPLIANCE

- Do not use aggressive substances or abrasive detergents when cleaning the stainless steel components.
- Avoid using metal pads of the steel parts as they may cause rust. For the same reason, avoid contact with materials containing iron.
- Do not use sandpaper or abrasive paper for cleaning; in special cases use a powder pumice stone.
- In case of particularly resistant dirt, it is advisable to use abrasive sponges (e.g. Scotch-Brite).
- It is advisable to clean the appliance only once it has cooled down.

5.1.1 DAILY CLEANING

The appliance must be disconnected from the power supply during cleaning.

When cleaning the appliance never use direct jets of water to prevent infiltration of the liquid and damage to components.

- Clean the cooking vat with water and a detergent, rinse thoroughly and dry well with a soft cloth.
- External surfaces should be washed down using a sponge, and hot water with a suitable proprietary cleaner addend.
- Rinse always thoroughly and dry with a soft cloth.

5.2 SPECIAL PROCEDURES IN CASE OF PROLONGED INACTIVITY

- If the appliance is to stand idle for any length of time (e.g. holidays or seasonal closing), it must be cleaned thoroughly, leaving not traces of food or dirt.
- Leave the lid open so that air can circulate inside the vat.
- For added care after cleaning, the external surfaces can be protected by applying a proprietary metal polish.
- Be absolutely sure to shut off all utilities (electrical power supply and water).
- Air the room appropriately.

5.3 SPECIAL PROCEDURES IN CASE OF FAILURES

- If the appliance should not work properly during use, turn it off immediately and close or cut off all supplies (electrical power supply and water).
- Apply to a service centre for help.

	The manufacturer shall not be held responsible nor has any warranty commitments for damage caused by non-compliance with prescriptions or by installation not in conformity with instructions. The same applies in case of improper use or different application by the operator.

5.4 HOW TO PROCEED, IF …

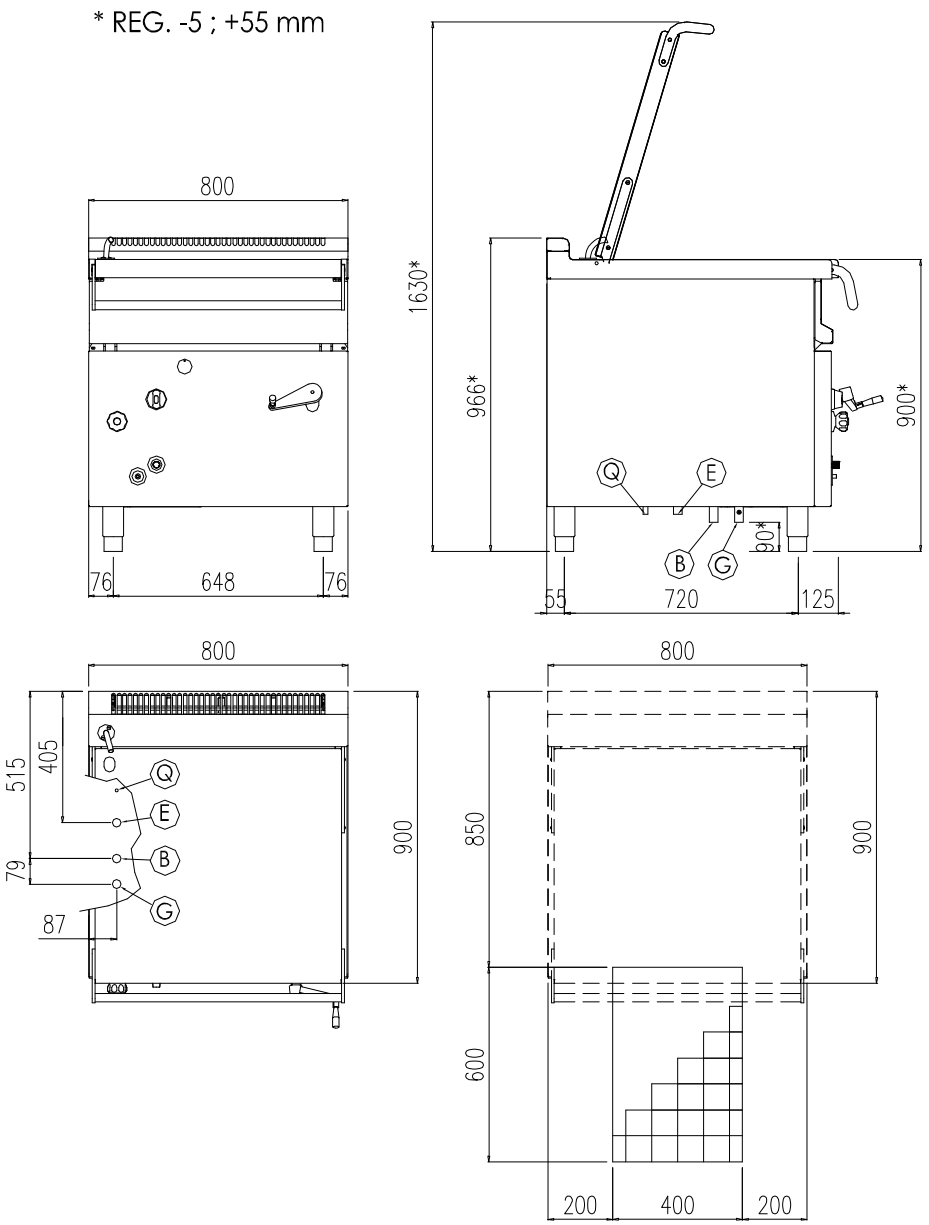
WARNING! :
Problems and failures may occur even when the appliance is used properly. Here is a list of the mist probably situations and controls that the operator should perform to avoid applying to a service centre unnecessarily.
If the problem is not solved after the necessary controls, turn off the appliance immediately, unplug it, cut off any supplies and apply to a service centre.

– **… the vat contents do not heat up:**	– **check** that there is gas in the network and that the tap is open; – **check** that the main burners are turned on. – otherwise turn off the appliance and apply to a service centre, as the safety thermostat may have been activated due to an excess of temperature in the cooking vat. Or the unit needs servicing because the burners are dirty and clogged.

6 FIGURES AND DETAILS

6.1 LAYOUT CONNECTIONS BR8G080

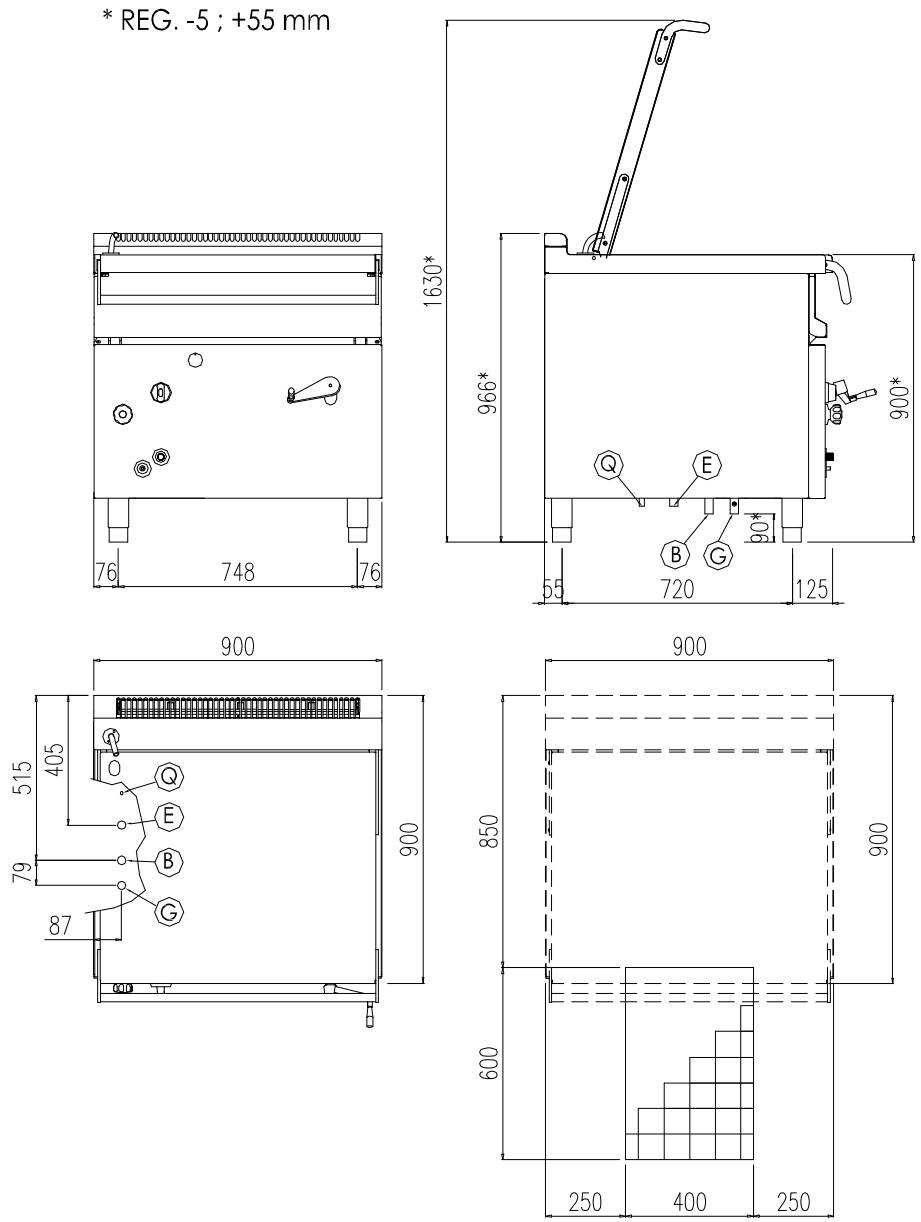
LEGEND:			
BR8G080I		BR8G080I.M	
G	Gas connection (ISO 7-1)	G	Gas connection (ISO 7-1)
B	Water connection	B	Water connection
		E	Electrical connection
		Q	Equipotential clamp



BR8G080I BR8G080I.M

6.2 LAYOUT CONNECTIONS BR9G090

LEGEND:			
BR9G090I		BR9G090I.M	
G	Gas connection (ISO 7-1)	G	Gas connection (ISO 7-1)
B	Water connection	B	Water connection
		E	Electrical connection
		Q	Equipotential clamp



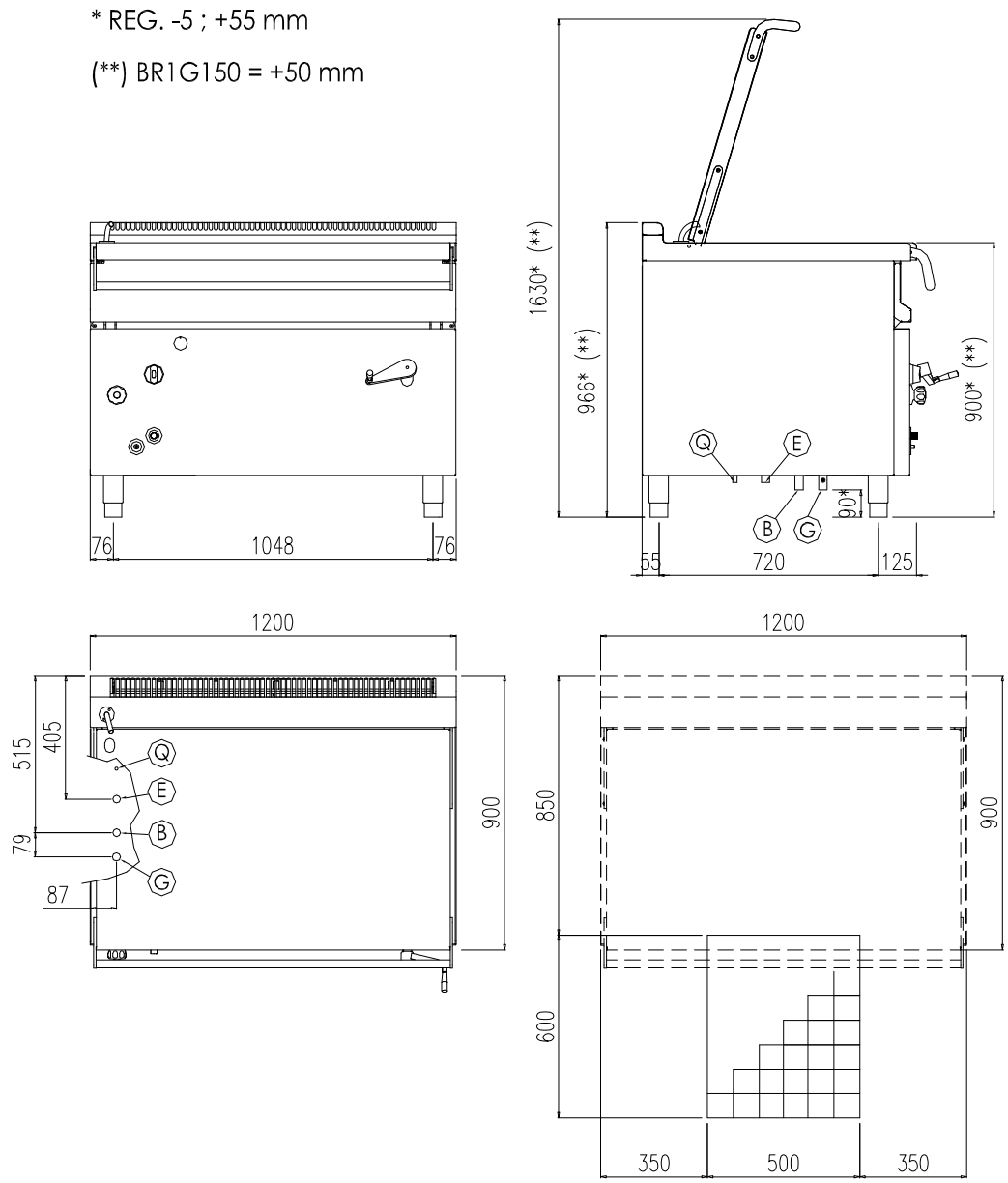
BR9G090I BR9G090I.M

6.3 LAYOUT CONNECTIONS BR1G120-BR1G150

LEGEND:			
BR1G120I BR1G150I		BR1G120I.M BR1G150I.M	
G	Gas connection (ISO 7-1)	G	Gas connection (ISO 7-1)
B	Water connection	B	Water connection
		E	Electrical connection
		Q	Equipotential clamp

* REG. -5 ; +55 mm

(**) BR1G150 = +50 mm



BR1G120I BR1G120I.M

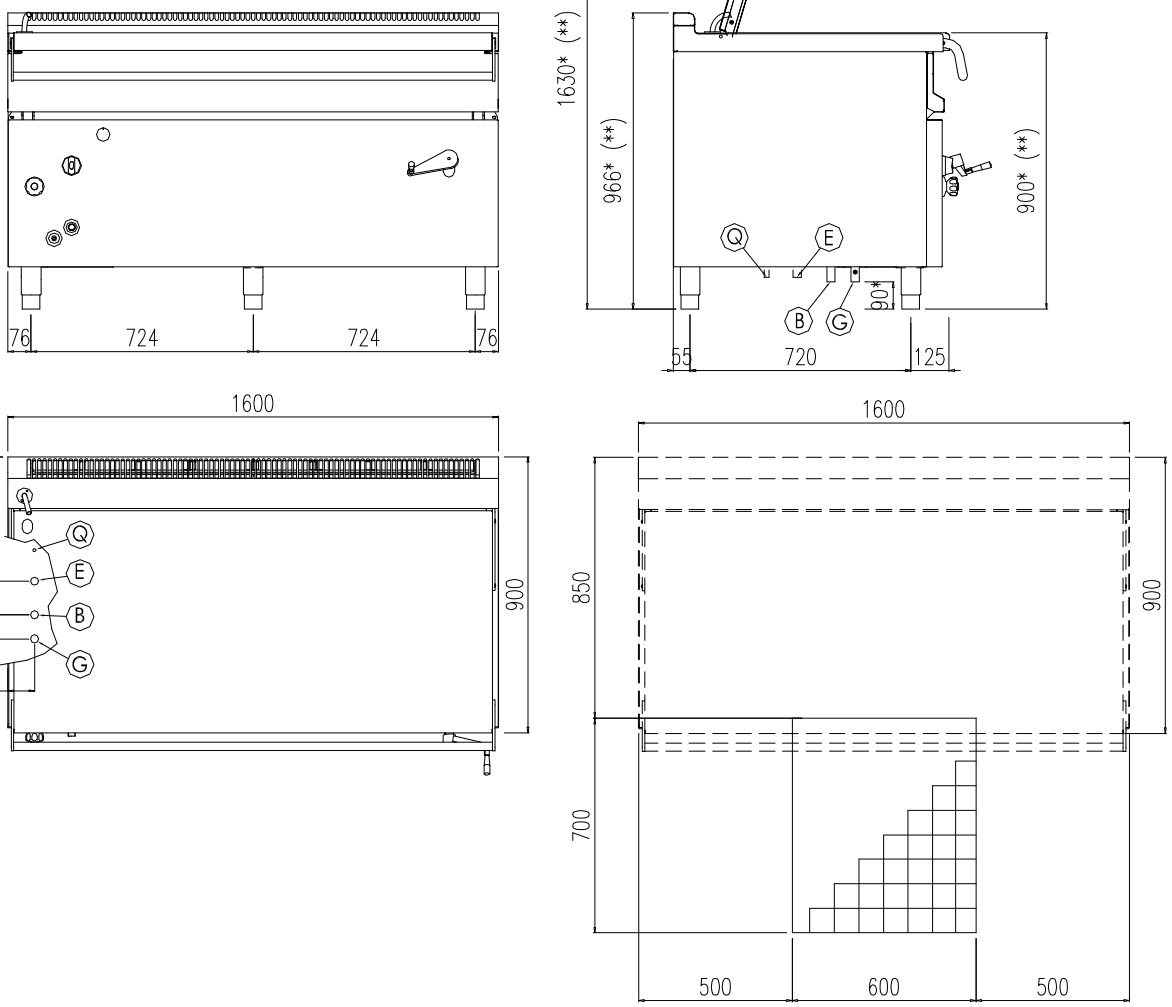
BR1G150I BR1G150I.M

6.4 LAYOUT CONNECTIONS BR1G160-BR1G200

LEGEND:			
BR1G160I BR1G200I		BR1G160I.M BR1G200I.M	
G	Gas connection (ISO 7-1)	G	Gas connection (ISO 7-1)
B	Water connection	B	Water connection
		E	Electrical connection
		Q	Equipotential clamp

* REG. -5 ; +55 mm

(**) BR1G200 = + 50 mm



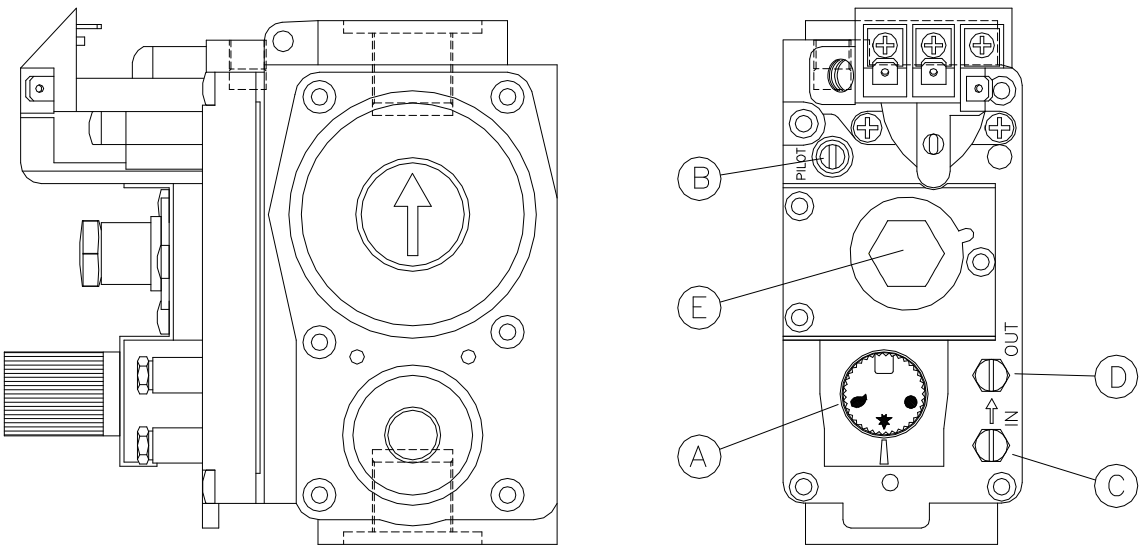
BR1G160I BR1G160I.M

BR1G200I BR1G200I.M

6.5 FIG. GAS VALVE BR.G

LEGEND:			
A	Control knob	D	Inlet pressure intake
B	Pilot output adjustment screw	E	Excluder pressure regulator
C	Inlet pressure intake		

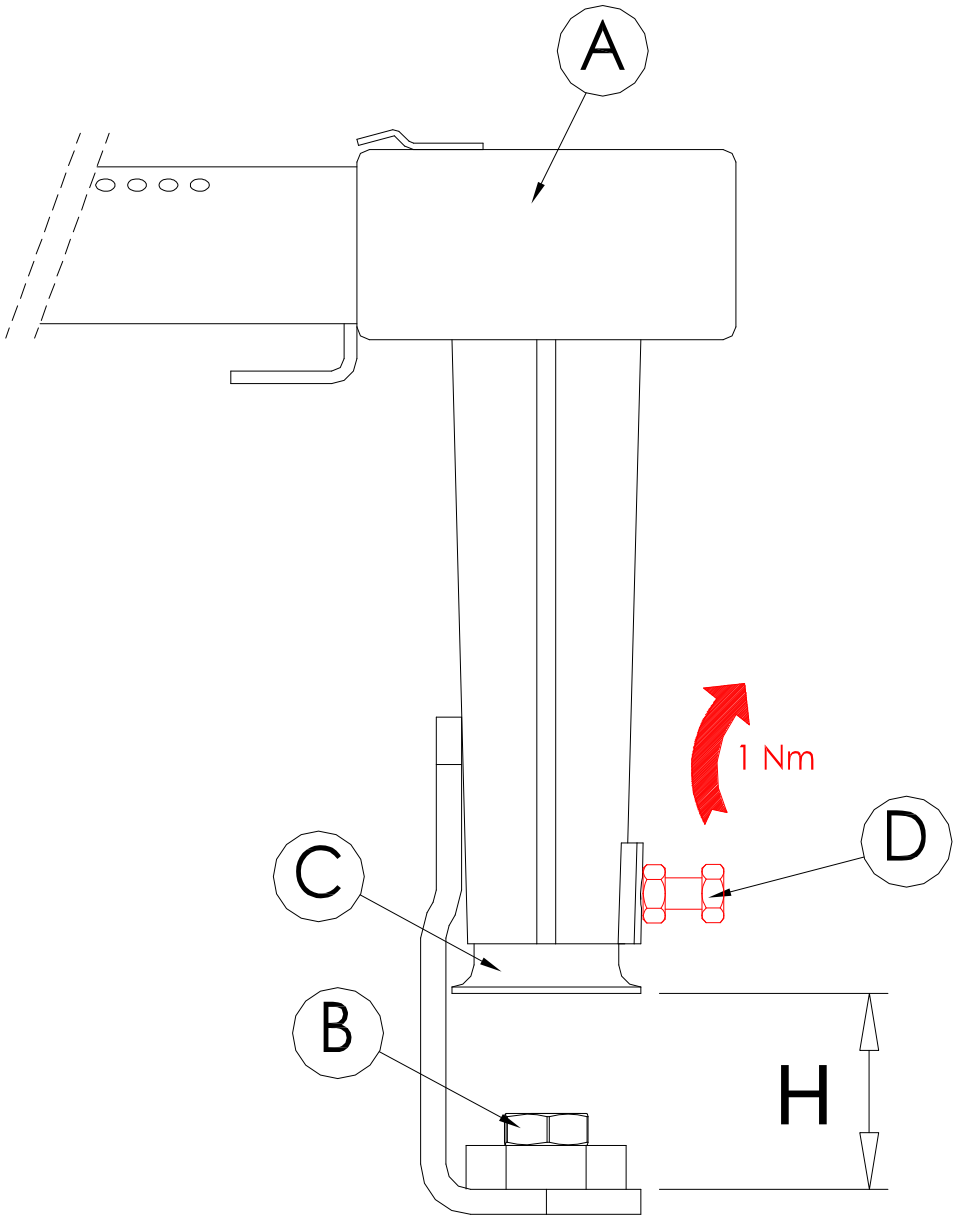
IMPORTANT
The adjustment screws visible on the cocks and/or valves must not be touched because they been set and sealed in the factory



dis.30100014

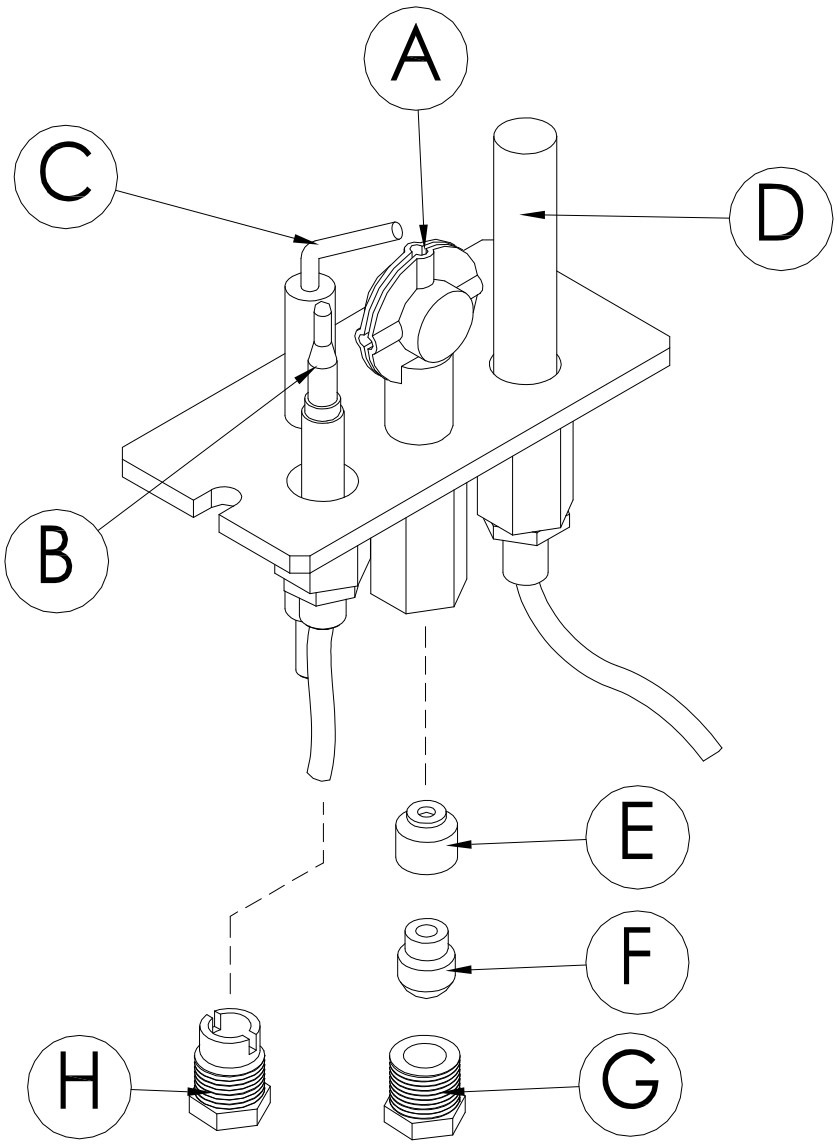
6.6 FIG. MAIN BURNER – PRIMARY AIR REGULATION

LEGEND:			
A	Burner	C	Air regulation square
B	Injector (tab."GAS DATA")	D	Square lock screws
		H	See tab."GAS DATA"



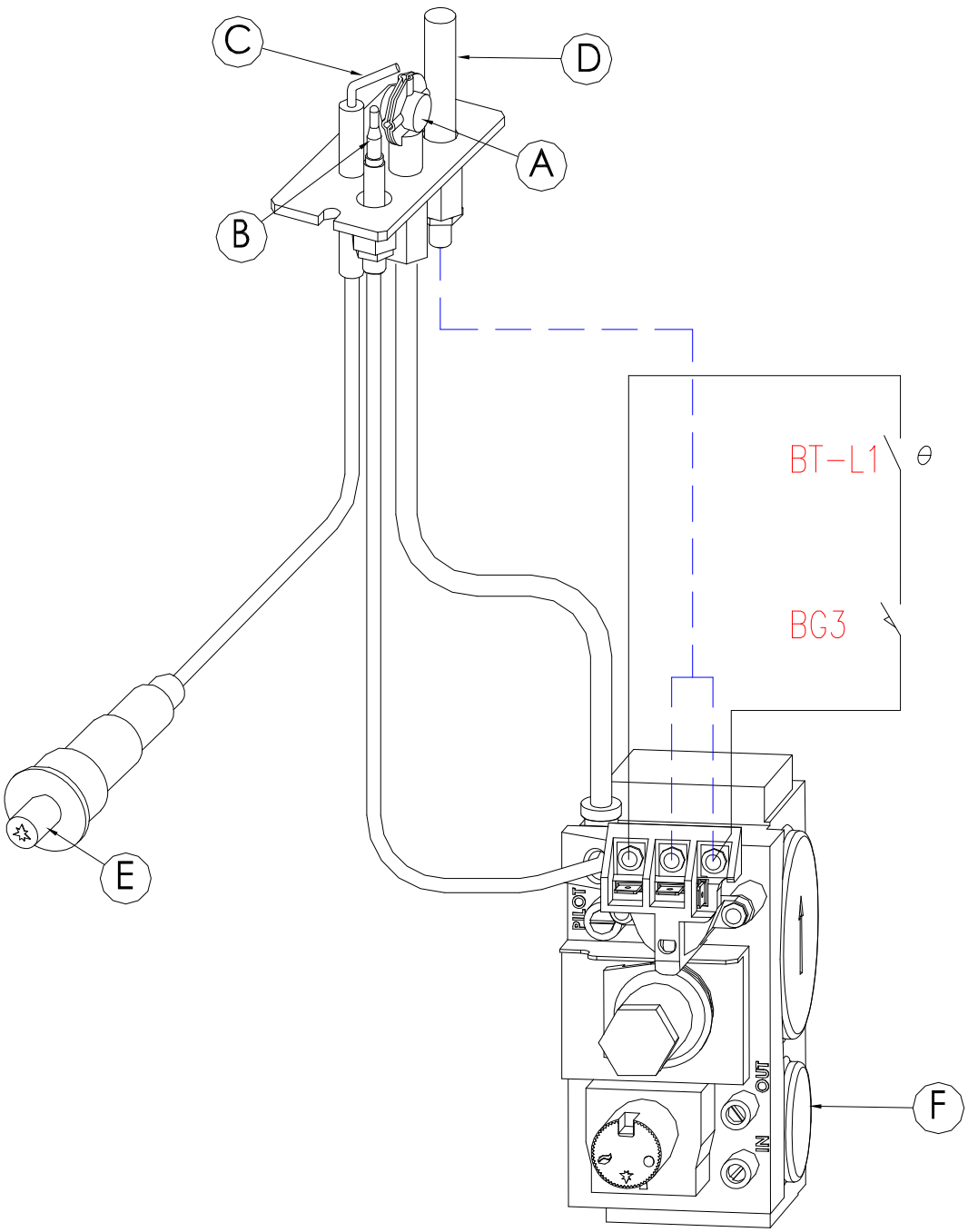
6.7 FIG. PILOT BURNER BR.G

LEGEND:			
A	Pilot burner	E	Injector (tab."GAS DATA")
B	Thermocouple	F	Bicone
C	Ignition plug	G	Tightness screw
D	Thermo-pile	H	Nut for thermocouple



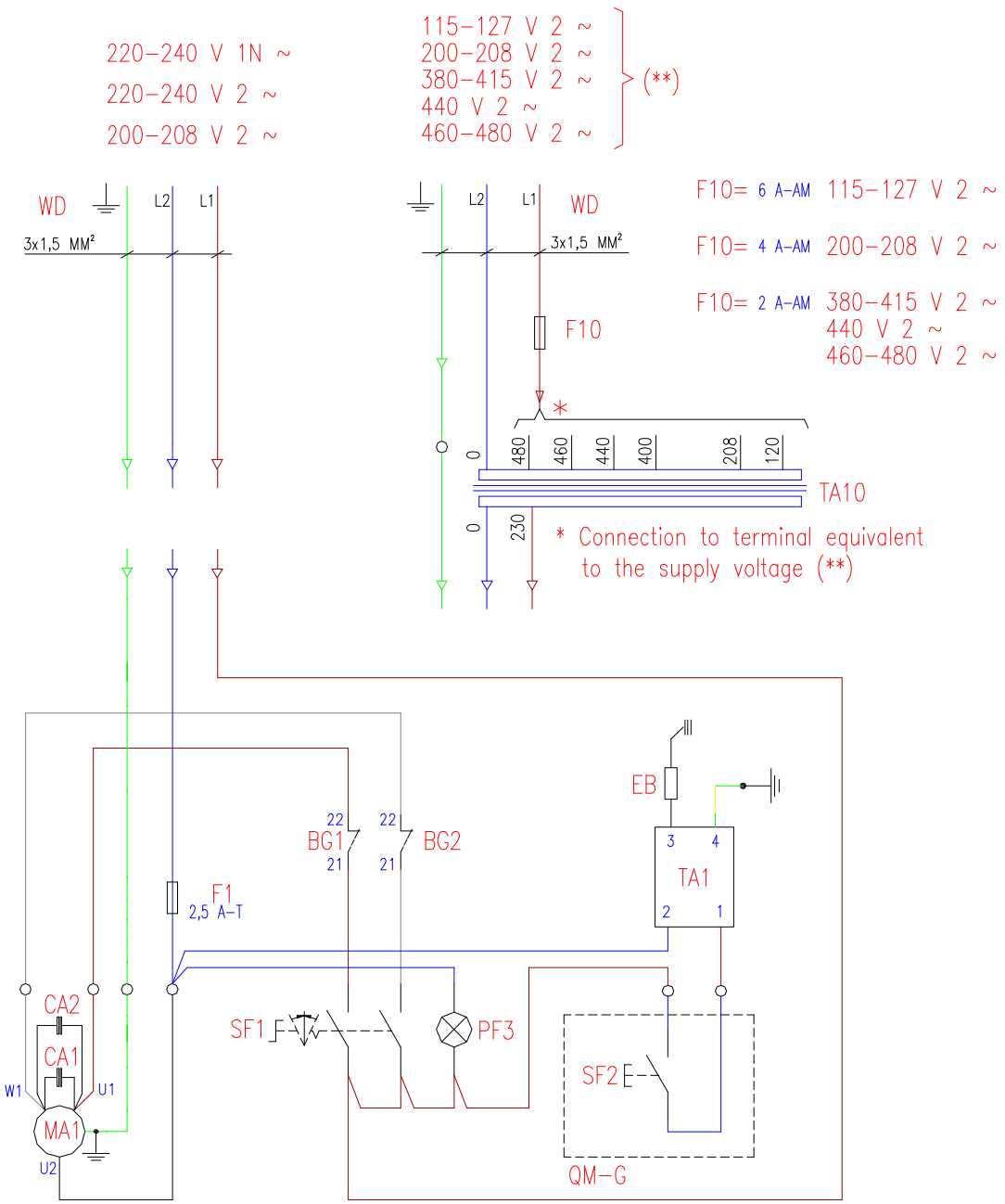
6.8 FIG. GAS VALVE BR.G

LEGEND:			
A	Pilot burner	F	Electronically controlled gas valve
B	Thermocouple		
C	Ignition plug		
D	Thermo-pile	BT-S1	Operating thermostat
E	Ignition device	BG3	Heating microswitch



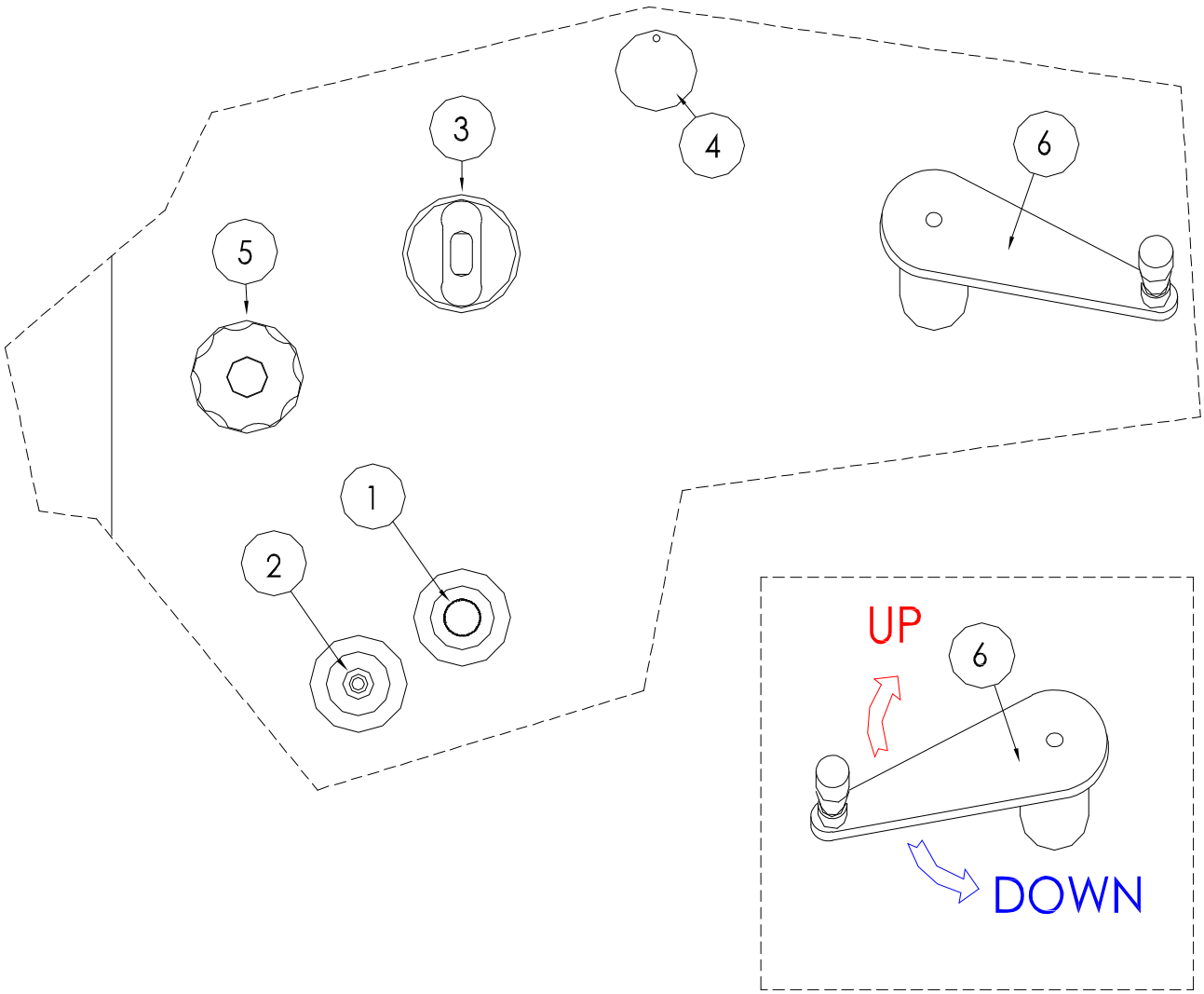
6.9 WIRING DIAGRAM BR.G..M

LEGEND:			
BG1	Vessel return limit switch	QM-G	Electronically controlled gas valve
BG2	Vessel tilting limit switch	MA1	Tilting Single-phase gearmotor
CA1	Condenser 16 nF	TA1	Transformer for ignition
CA2	Condenser 20 nF	TA10	Transformer 120-208-400-440-460-480/230V
EB	Ignition candle	SF1	Up/down selector
F1	Fuse 2,5 A-T	SF2	Main ignition botton
F10	Fuse 2/4/6 A-AM	WD	Power cable
PF3	Green warning light		



6.10 FIG. CONTROLS BR.G

LEGEND:			
1	Control knob	4	Peephole
2	Ignition device	5	Vat water feed tap
3	Operating thermostat	6	Tilting handwheel



Pos. "0"

Pos. "1"

Po