



**INSTRUCTION MANUAL
FOR INSTALLATION,
MAINTENANCE
AND USE**

GAS KETTLES

“PM.G...A”

2800021

2800031

2800071

2800081

Cat. II_{2H3+}



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MANUALE D'ISTRUZIONE

Codice **PM.G...A**

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1.1. 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.
- All important information about the appliance required for technical service is contained in the technical data plate (see figure “*Size of appliance and position of connections*”).
- In the event of technical assistance being 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.

Warning! : Follow the fire prevention regulations very carefully.

1.2. TECHNICAL DATA

Table 1 – General data

Note: Models with "A" as end letter = pressure kettle

Model	Type of heating:	Vat usable volume: l	Pressure in the vat: bar	Jacket pressure: bar
PM8DG100	Direct	100	--	--
PM9DG100	Direct	100	--	--
PM8DG100 A	Direct	100	0,05	--
PM9DG100 A	Direct	100	0,05	--
PM8IG100	Indirect	100	--	0,5
PM9IG100	Indirect	100	--	0,5
PM8IG100 A	Indirect	100	0,05	0,5
PM9IG100 A	Indirect	100	0,05	0,5
PM8DG150	Direct	140	--	--
PM9DG150	Direct	140	--	--
PM8DG150 A	Direct	140	0,05	--
PM9DG150 A	Direct	140	0,05	--
PM8IG150	Indirect	135	--	0,5
PM9IG150	Indirect	135	--	0,5
PM8IG150 A	Indirect	135	0,05	0,5
PM9IG150 A	Indirect	135	0,05	0,5
PM9DG200	Direct	200	--	--
PM9DG200 A	Direct	200	0,05	--
PM1DG200	Direct	200	--	--
PM1DG200 A	Direct	200	0,05	--
PM1IG200	Indirect	200	--	0,5
PM1IG200 A	Indirect	200	0,05	0,5
PM1DG300	Direct	300	--	--
PM1DG300 A	Direct	300	0,05	--
PM1IG300	Indirect	300	--	0,5
PM1IG 300 A	Indirect	300	0,05	0,5
PM1DG500	Direct	500	--	--
PM1DG500 A	Direct	500	0,05	--
PM1IG500	Indirect	500	--	0,5
PM1IG500 A	Indirect	500	0,05	0,5
PM9DG170GN	Direct	170	--	--
PM9IG170GN	Indirect	170	--	0,5
PM9DG270GN	Direct	270	--	--
PM9IG270GN	Indirect	270	--	0,5
PM9DG370GN	Direct	370	--	--
PM9IG370GN	Indirect	370	--	0,5

Table 2 – Sizes (see figure “Size of appliance and position of connections”)

Specifications		Models					
Description	Unit of measurement	PM8...	PM9...	PM9DG200	PM1.G200	PM1.G300	PM1.G500
Width (A)	mm	800	900	900	1000	1150	1150
Depth (B)	mm	900		900	1150	1300	1300
Height (C)	mm	900		950	900	900	1050
Vat diameter	mm	600		600	750	900	900

Specifications		Models		
Description	Unit of measurement	PM9.G170GN	PM9.G270GN	PM9.G370GN
Width (A)	mm	1000	1400	1800
Depth (B)	mm	900	900	900
Height (C)	mm	900	900	900
Vat diameter	mm	700X550	1100X550	1500X550

Table – Electrical data

Description	Unit of measurement	PM1IG200 / 300 / 500 PM9IG170/ 270/ 370GN
Power	W	200
Voltage/Input		AC 230 V / 60 Hz

Table 3 – General water data

Specifications		Models		
Description	Unit of measurement	PM8....	PM9.... PM9DG200	PM1.G200 / 300 / 500 PM9...GN
Cold water connection	mm	10		1/2"
Hot water connection	mm	10		1/2"
Water pressure	kPa	50 – 300		

Table 4 – Minimum output setting

	PM8... /PM9....	PM1.G200	PM1.G300	PM1.G500
G 20 – 20 mbar	2,5 mbar	8,6 mbar	5,6 mbar	5 mbar
G 30 – 28-30/37 mbar	3 mbar	12 mbar	8,5 mbar	7,25 mbar

	PM9.G170GN	PM9.G270GN	PM9.G370GN
G 20 – 20 mbar	7,5 mbar	4 mbar	3,5 mbar
G 30 – 28-30/37 mbar	11,6 mbar	5,5 mbar	10,5 mbar

Table 5 – Gas data

Description			PM8..... PM9.....	PM9DG200	PM1.G200	PM1.G300	PM1.G500	Lower calorific value H _i	
Rated heating power		kW	21	32	34.5	48	58		
Minimum power		kW	7	15	22.5	26.5			
Gas connection		R"	½"	½"	½"	½"	½"		
Consumption	G20 – 2H	m³/h	2,22	3,38	3,65	5,07	6,1	kWh/m³ 9,45	
	G30 – 3+	Kg/h	1,65	2,52	2,72	3,78	4,57	kWh/kg 12,68	
Nozzles diameter in 1/100 mm	G20	20 mbar	Pilot	40	40	40	40	40	
			Maximum	3 X 205	4 X 225	4 X 225	4 X 280	4 X 310	
			Minimum	ADJUST.	ADJUST.	ADJUST.	ADJUST.	ADJUST.	
	G30	28-30/37 mbar	Pilot	20	25	25	25	25	
			Maximum	3 X 135	4 X 145	4 X 150	4 X 185	4 X 195	
			Minimum	ADJUST.	ADJUST.	ADJUST.	ADJUST.	ADJUST.	
Primary air distance	G20	mm	30	23	30	10	30		
	G30		OPEN		OPEN	OPEN			

Description			PM9.G170GN	PM9.G270GN	PM9.G370GN	Lower calorific value H _i	
Rated heating power		kW	30	44	49		
Minimum power		kW	17,8	20	24		
Gas connection		R"	½"	½"	½"		
Consumption	G20 – 2H	m³/h	3,17	4,65	5,18	kWh/m³ 9,45	
	G30 – 3+	Kg/h	2,36	3,47	3,86	kWh/kg 12,68	
Nozzles diameter in 1/100 mm	G20	20 mbar	Pilot	40	40	40	
			Maximum	6 X 175	10 X 170	14 x 170	
			Minimum	ADJUST.	ADJUST.	ADJUST.	
	G30	28- 30/37 mbar	Pilot	25	25	25	
			Maximum	6 X 115	10 X 110	14 x 110	
			Minimum	ADJUST.	ADJUST.	ADJUST.	
Primary air distance	G20	mm	1	10	1		
	G30		25	18	18		

Table 6 – Gas inlet pressure

Table 6a Nominal main pressure for the different types of gas	Gas family 2 – Natural	20 mbar
	Gas family 3 –LPG	28-30/37 mbar
Table 6b Operation permissible if pressure is in the range:	Gas family 2 – Natural	da 17 a 25 mbar
	Gas family 3 –LPG	da 20/25 a 35/45 mbar
Table 6c Operation non permissible if pressure is lower than:	Gas family 2 – Natural	17 mbar
	Gas family 3 –LPG	20/25 mbar
Table 6d Operation non permissible if pressure is higher than:	Gas family 2 – Natural	25 mbar
	Gas family 3 –LPG	35/45mbar

1.3. CONSTRUCTION

- Main structure in steel with 4 adjustable height feet.
- Panels in stainless steel AISI 304, thickness 10-12/10.
- Cooking vat in stainless steel AISI 316, thickness 20/10.
- Lid in stainless steel, hinged and spring balanced in all opening positions.
- Chrome-plated brass drainage tap.
- Vat heating controlled by means of high efficiency stainless steel tubular burners resistant to mechanical and thermal stress.
- The gas supplied to the burner is adjusted by a cock.
- The appliance has a pilot burner with fixed injector, besides piezoelectric ignition.
- The safety of the appliance is ensured by a thermocouple that cuts off the gas flow if the pilot burner should turn off for any reason.
- The cold/hot water connection is 10 mm. (Mod. 100/150lt.)
- The cold/hot water connection is ½". (Mod. 200/300/500/170/270/370lt.)
- The appliance is equipped with a mixer tap.

1.3.1. SPECIAL FEATURES FOR PRESSURE KETTLES

(MODELS PM..... A)

- Stainless steel lid with heat-resistant silicone gasket.
- Hermetically sealed with 4 screw clamps.
- The relief valve for the pressure that develops in the cooking chamber is set at 0.05 bar.

1.3.2. SPECIAL FEATURES ONLY FOR INDIRECT KETTLES

(MODELS PM.IG... .)

- Stainless steel cooking vat and chamber.
- To ensure safe operation, the appliance is equipped with the following devices:
 - Steam safety valve set at 0.5 bar;
 - Pressure gauge for steam pressure reading;
 - Jacket steam trap;
 - Steam pressure switch set at 0.5 bar;
 - Jacket water supply with level control by means of taps.
 - Safety thermostat to interrupt operation automatically in case of failures.

1.4. 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;
- current accident prevention guidelines;
- 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;
- electricity board regulations concerning safety;
- the regulations of the electrical power supply company or agency;
- any other local prescriptions.

1.5. SPECIAL REQUIREMENTS FOR THE INSTALLATION SITE

- The appliance belongs to the installation class A₁ (no direct connection of a chimney or 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.
- This appliance requires two water connections: one for hot and one for cold water. Each line must be fitted with an on-off valve.

Warning! : The shutoff valves must both be located near to the appliance, within easy reach for the user.

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 5 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.

2.2. INSTALLATION

Warning! : Only qualified technicians must perform the installation, maintenance and test of the appliance.

Warning! : 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. 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 to 10 mm are fitted in the lower part on the left-hand side of the appliance.
- Make connections according to regulations currently in force.

2.2.2. 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.
- 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.
- The gas fitting is located on the lower right side of the appliance
- 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.

Warning! : Flames are strictly prohibited for leakage tests!

2.3. 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 appliance must be used with the correct injectors for its thermal power rating (See table 5 in the “*Technical data*”).
- The operation of the appliance with its heating capacity depends on the inlet pressure and the calorific power of the gas.
- The pressure range (inlet pressure) within which the appliance is allowed to operated is stated in table 6b “*Inlet pressure*” of the paragraph “*Technical Data*”. **The appliance shall not be operated out of the given pressure range.** If pressure should differ from the figures stated in table 6b, advise the gas board or the company which has installed the system.
- The lower calorific value of the gas can be checked with the supply company or agency, and should comply with the information given in table 5 “*Gas data*” in the “*Technical data*” heading.

2.3.1. CONTROL OF THE GAS INLET PRESSURE

- The feed pressure is measured using a liquid pressure gauge (e.g. a U-shaped pressure gauge, minimum definition 0.1 mbar). The supply pressure can be measured directly at the **inlet pressure intake** on the gas feed pipe. The inlet pressure intake can be reached by opening the lower front panel once the two side screws have been removed. (See figure “*Measuring the inlet pressure*”).
- Before connecting the manometer, the screw of the pressure port must be loosened.
- Connect the U-shaped pressure gauge while the appliance is operating to measure pressure.
- The pressure reading on the gauge should be in the admitted pressure range stated in table 6b “*Inlet pressures*” of paragraph “*Technical data*”.
- If pressure figures should not be correct, apply to the gas board or the company which has installed the system.
- Having read the pressure, re-tighten the screw carefully.

Warning! **The sealed adjuster screws on the gas solenoid valve must not be tampered with, otherwise any guarantee rights shall be forfeited immediately.**

2.3.2. CONTROL 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” (see figure “*Primary air regulation*”) recommended for primary air adjustment is stated in table 5 in the “*Technical data*”.

2.4. 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 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 and gas connections are leak-free;
 - that the electrical connection has been performed according to standards.
- Now the appliance can be ignited following the instructions for use and controlling the following points:
 - progressive ignition of the burner;
 - even flames;
 - flame security: check these points at both minimum and maximum output.
- Check that the flue gas exhaust is not clogged and that they are expelled without any hindrance.
- 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.

2.5. CONVERSION TO OTHER TYPES OF GAS

- To convert the appliance for use with another type of gas, the injectors on the main burners and on the pilot burner need to be replaced. (See table 5 and figure "Main burner").
- All the injectors needed for the different types of gas are contained in a bag supplied with the appliance.
- The supply pressure and the manual setting of minimum output should also be checked. (See table 4 – Minimum output setting).

2.5.1. REPLACEMENT OF INJECTORS FOR MAIN BURNERS

- The injectors can be reached by removing the lower front panel, once the two side screws have been unloosed.
- Disconnect the tube with the injectors, unloose the screws and remove.
- Use a fixed wrench SW11 to unscrew the injector and replace it with a suitable one.
- Re-install the primary air regulation bracket at the distance "H" as shown in table 5, see also "Primary air regulation".

2.5.2. REPLACEMENT OF INJECTORS FOR PILOT BURNER

- The injector of the pilot burner can be reached by removing the lower front panel. Remove the side and lower screws.
- The pilot burner is in the front of the combustion chamber.
- Unloose the screw and replace the injector with an appropriate one.

2.5.3. MINIMUM OUTPUT ADJUSTMENT

- Once the appliance has been switched on, set the cock knob on the minimum position.
- Remove the cock knob that will reveal a small hole on the panel of the appliance.

Turn the minimum adjustment screw on the cock with a screwdriver through the hole on the panel.

Warning! **Measure the minimum output pressure directly at the output pressure connection on the injector tube (see figure “Measuring gas pressure”)**

- Set the output pressure of the gas cock according to the figures stated in table 4 - Minimum output setting).
- After setting, seal the adjustment screw!

Warning! **After each conversion, it is necessary to check tightness and operation!**

2.6. MAINTENANCE OF THE APPLIANCE

Warning! : **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 to control the components and tear of pipes, feeding pipes 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.

2.6.1. ANODE REPLACING

Boiling pans gas indirect heated 200/300/500 lt and 170/270/370 lt.

The above machines have a cathode protection “anode” located inside the double jacket.

The cathode protection is an electrochemical technique to save metal structures against corrosion due to an electrolytic field.

Maintenance:

The anode wears thin in the time, must be checked at least once per year and if very wasted must be replaced.

The control must be visually, removing the anode from its site, after emptying the jacket water:



- Discharge the jacket water unscrewing the under vessel cap.
- Dimantel the panel covering the anode.
- Unscrew and extract the anode.
- Check it and replace in case of usury.
- To install it make the contrary operation, remind to fill the double jacket (see chap. 3.2.1)

2.6.2. POSSIBLE FAILURES AND THEIR ELIMINATION

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

Warning! : Before resetting the safety thermostat, it is always necessary to eliminate the problem causing its activation (only for models with indirect heating)!

Problem and possible cause	Access to components and operation
<p>The content of the vat does not heat up:</p> <ul style="list-style-type: none"> - the safety thermostat has been activated. 	<p>Safety thermostat The safety thermostat can be reached by removing the lower front panel once the two side screws have been unloosed.</p> <p>Main burners Remove the lower front panel.</p> <p>Pilot burner Remove the lower front panel. The pilot burner is in the front of the combustion chamber.</p> <p>Ignition plug and thermocouple Remove the lower front panel.</p>
<p>The pilot burner is on but the main burners do not light up:</p> <ul style="list-style-type: none"> - loss of pressure in gas supply; - clogged injectors on main burners. 	
<p>The pilot burner does not light up:</p> <ul style="list-style-type: none"> - clogged injectors on pilot burner; - faulty ignition plug; - check the cable of the ignition plug. 	
<p>The pilot burner does not remain lighted:</p> <ul style="list-style-type: none"> - faulty thermocouple; - partially clogged injector on pilot burner; - faulty cock magnet. 	

3.1. 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!

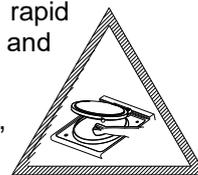
- This appliance is for catering use, hence they must be used only by trained kitchen staff.
- The appliance must always be kept under control during use.

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 in mind, customers are recommended to sign a service agreement.
- In case of failures concerning the appliance, all outputs (gas and water) must be cut off instantly.
- In case of recurrent failures contact a service technician.

3.2. INSTRUCTIONS FOR USE

- Before to use the equipment, please verify the counterbalance of the lid. In case of rapid descent of it (the didn't remain in open position) call immediately the assistance service and do not use the machine.
- Be very careful moving the lid, to avoid hands crushing due to suddenly falling of the lid, use thick leather gloves.
- 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.

3.2.1. FILLING THE JACKET – MOD. 100-150LT.

Warning! : The water level in the jacket must be checked each time before lighting.

Warning! : It is advisable to use softened water to fill the jacket!

- Open the level tap on the front of the appliance.
- Unscrew the filling cap on the safety valve unit. The latter is on the right of the appliance surface (see figure “Size of appliance and position of connections”).
- Fill with softened water (the capacity of the jacket is stated in the paragraph “Technical data”).
- When water flows out of the level tap, close it and screw back on the safety unit cap.

MOD. 200/300/500 LT. – 170/270/370LT.

Warning! : The water level in the jacket must be checked each time before lighting.

Warning! : It is advisable to use softened water to fill the jacket!

- Open the level tap on the front of the appliance.
- Unscrew the filling cap on the safety valve unit. The latter is on the right of the appliance surface (see figure “Size of appliance and position of connections”).
- Reposition the tap (an external hole is available) on the external pin of the relief valve.
- This operation is required to prevent water bubbles from forming in the jacket during water loading. Water bubbles would not make it possible to reach a correct water level in the jacket.
- Fill with softened water (the capacity of the jacket is stated in the paragraph “Technical data”).
- When water flows out of the level tap, close it and screw back on the safety unit cap.



3.2.2. USE OF THE PRESSURE KETTLE LID (MODELS PM..... A)

- Before switching on the appliance, close the lid firmly and tighten the 4 clamps.
- The interior of the kettle can reach a maximum pressure of 0.05 bar.
- When this pressure is exceeded, the pressure relief valve on the lid will start operating. On request, the appliance is also available with a pressure gauge to display the pressure inside the kettle.

Warning! : After cooking and before opening the lid, all the pressure inside the kettle must be released by lifting the relief valve (see also figure “Relief valve”).

3.2.3. SWITCH ON, START OF COOKING AND SWITCH OFF

- The appliance is equipped with a selector to start all cooking operations (see figure “*Cotrols*”).
- Here is a list of the procedures for a safe and correct use of the appliance.

Lighting the pilot burner:

- Open the gas cock before the appliance.
- Turn the knob from position “●” leftwards to the position “☆”, press the knob and together press the piezoelectric ignition button repeatedly..
- Once the pilot flame is on, keep the knob pressed for a few seconds until the thermocouple heats up.

Starting cooking – igniting main burner:

- Turn the knob leftwards to the position  “or until minimum position  ” to light the burner.
- Generally cooking is started by setting the knob on the maximum heating position and once the vat has reached cooking temperature, the knob is turned to the minimum position to maintain the cooking temperature.

End of cooking – turning off main burner and pilot burner:

- Turn the knob rightwards until position “●” to turn off the main burner; only the pilot flame will be lighted. Turn the knob again until position “☆” to turn off the pilot burner. (See also figure “*Controls*”).

3.3. 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.

3.3.1. DAILY CLEANING

Warning! : 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.

Note for pressure kettles:

- Do not use detergents containing high percentages of ammonia and sodium to clean the lid gasket, as these substances may cause damage and quickly affect the tightness of the gasket.

3.4. 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 certain to shut off all utilities (gas and water).
- Air the room appropriately.

3.5. 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 (gas 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.

3.6. HOW TO PROCEED, IF ...

Warning! : Problems and failures may occur even when the appliance is used properly. Here is a list of the most 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, cut off any supplies and apply to a service centre.

... the vat contents do not heat up:

- **check** that there is gas in the mains and that the cock is open;
- **check** that the main burners are on.
- Otherwise **turn off the unit** and apply to a service centre, as the safety thermostat may have been activated because of an excess of temperature in the cooking vat. This occurs especially when the appliance is started and the vat and/or jacket is/are empty or when the appliance needs servicing because the burners are dirty and clogged.

4.1. SIZE OF APPLIANCE AND POSITION OF CONNECTIONS

Models PM8.G... / PM9.G...

LEGEND:

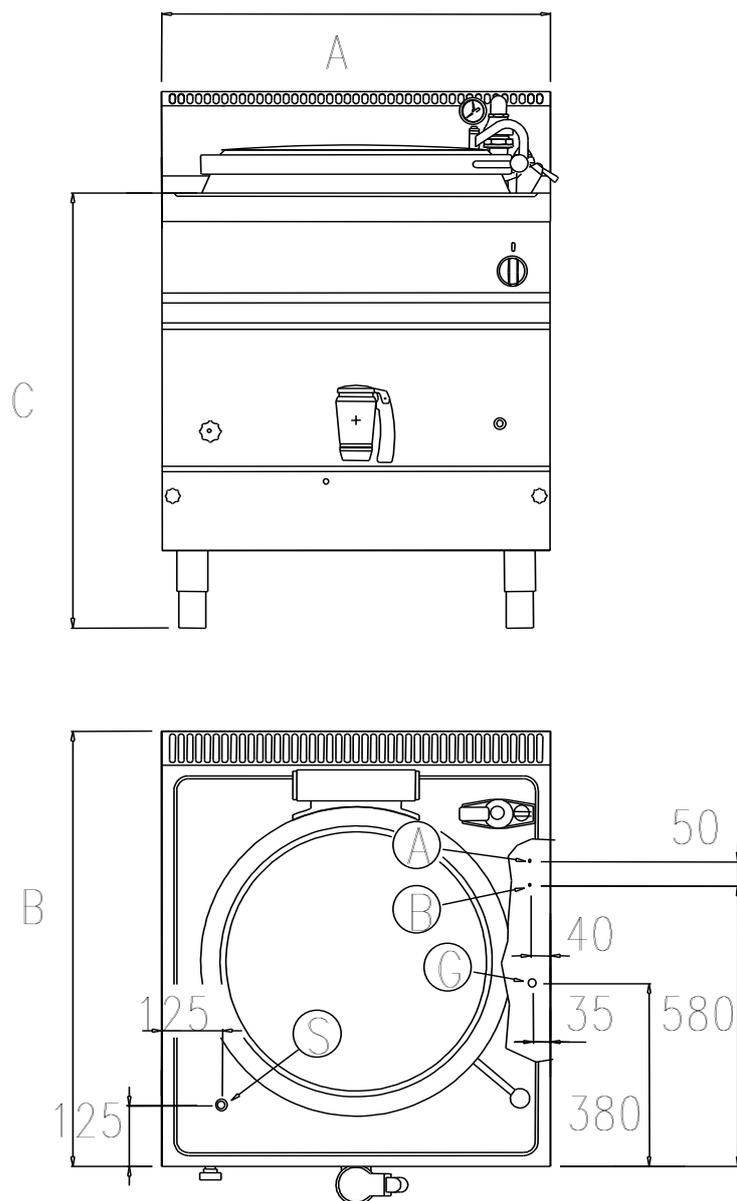
T - Technical data plate

G - Gas connection R 1/2" in conformity with ISO 7-1

A - Hot water connection 10 mm

B - Cold water connection 10 mm

S - Overflow

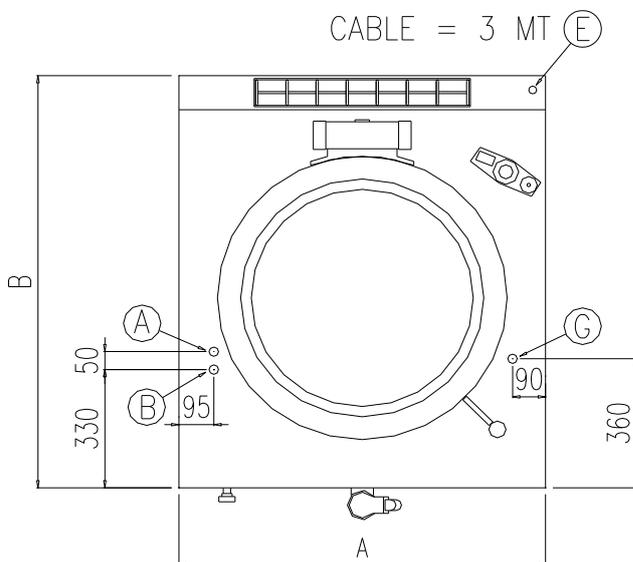
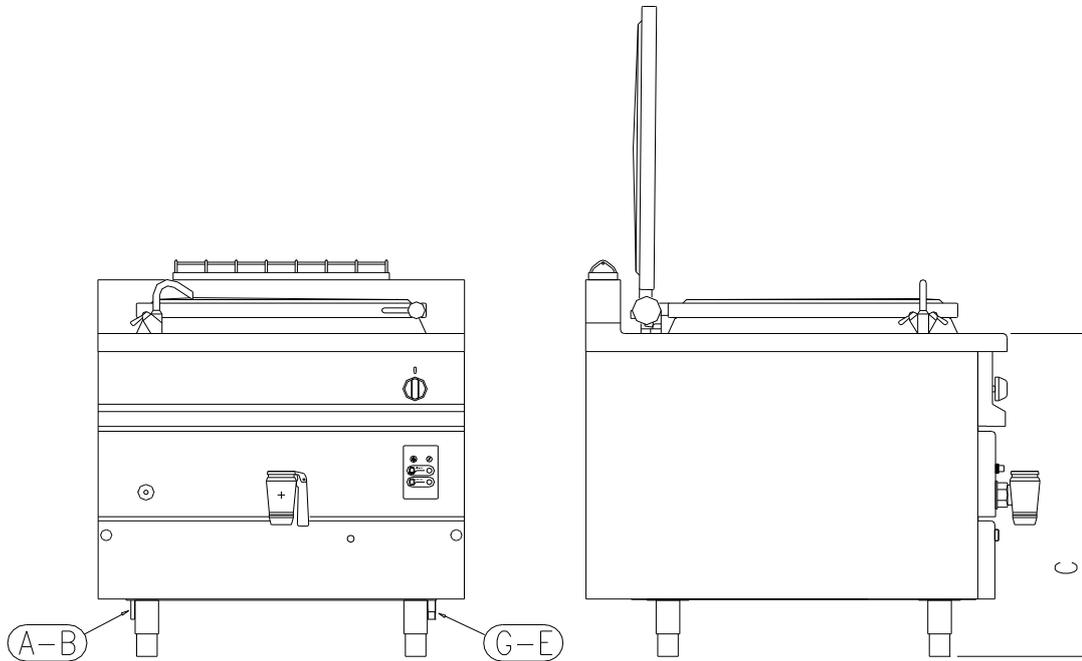


Models PM1.G200 / PM1.G300 / PM1.G500

LEGEND:

- G** - Gas connection R 1/2" in conformity with ISO 7-1
- E** - attack electrical (ONLY mod. IG)

- A** - Hot water connection 1/2"
- B** - Cold water connection 1/2"

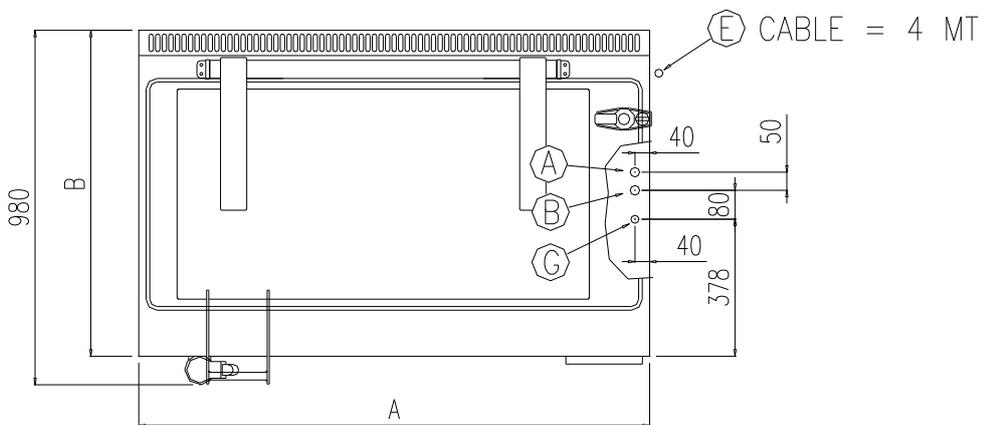
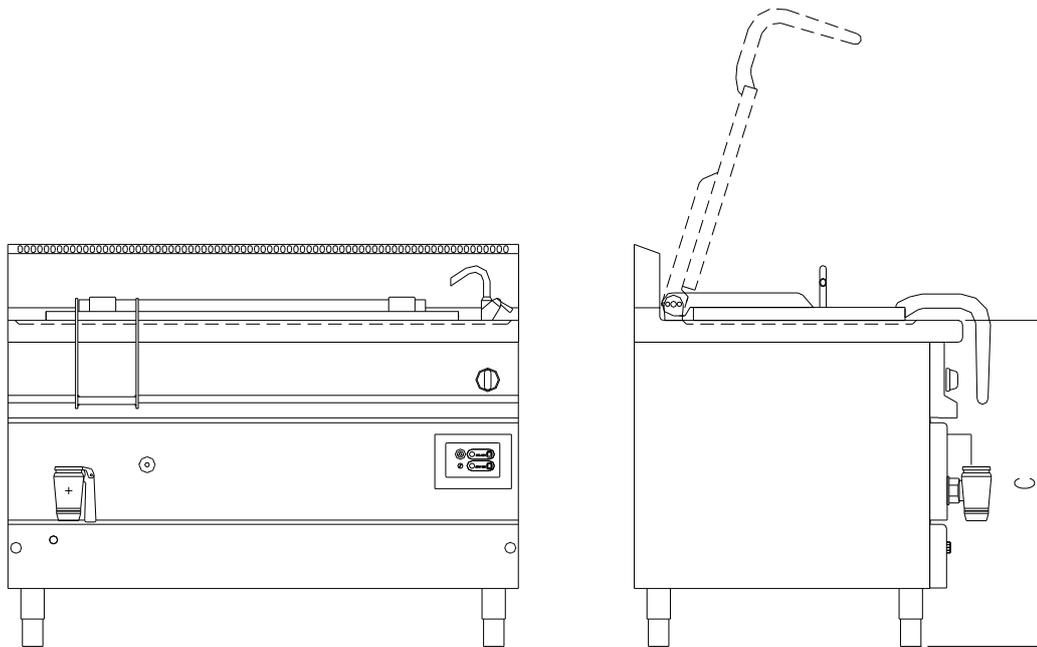


Models PM9.G...GN

LEGEND:

- G** - Gas connection R 1/2" in conformity with ISO 7-1
- E** - attack electrical (ONLY mod. IG)

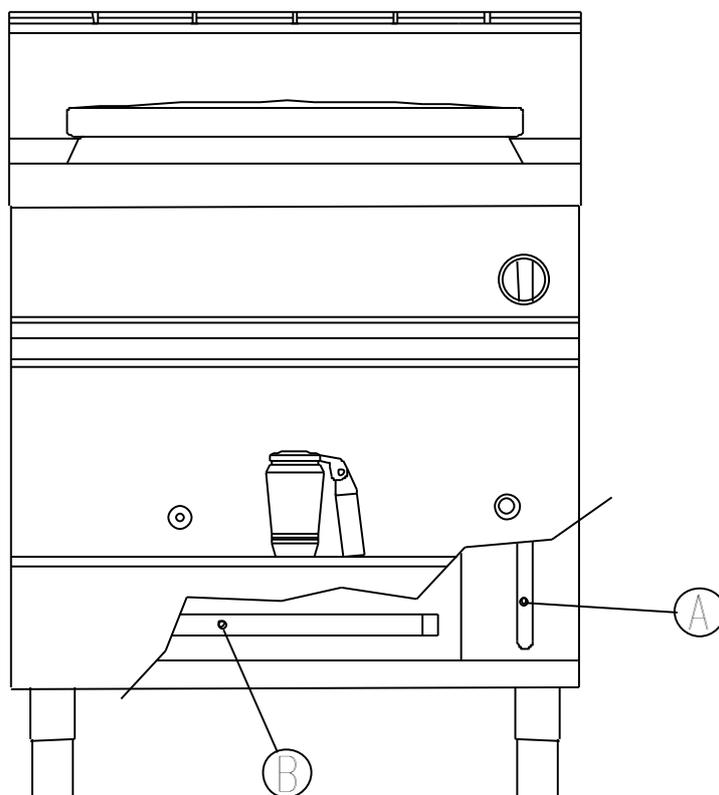
- A** - Hot water connection 1/2"
- B** - Cold water connection 1/2"



4.2. MEASURING THE INLET PRESSURE

LEGEND:

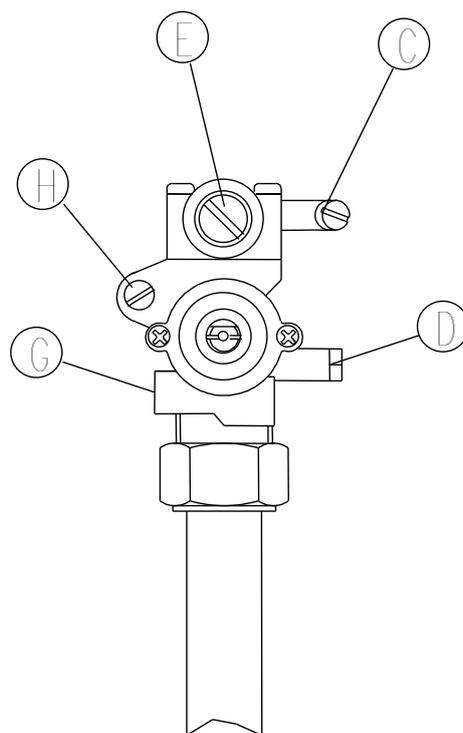
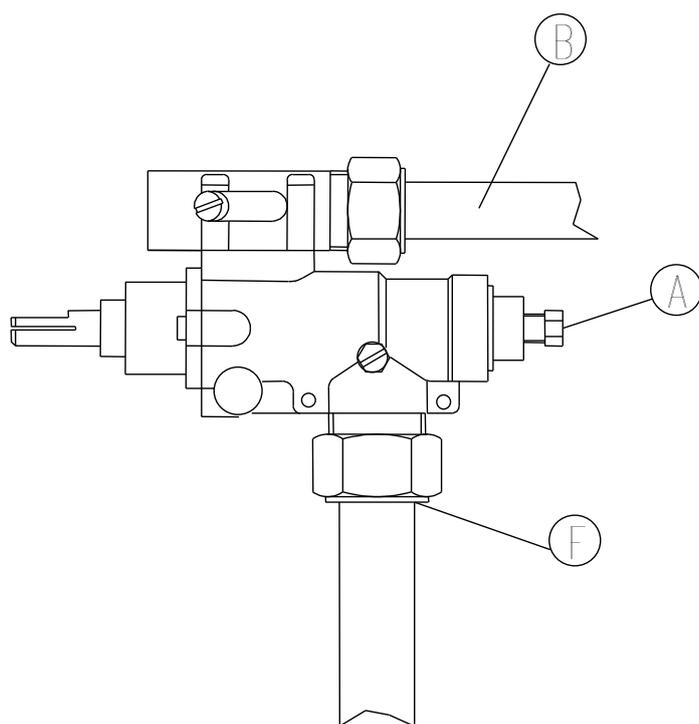
A	Inlet pressure intake	
B	Outlet pressure intake	



4.3. GAS COCK

LEGEND:

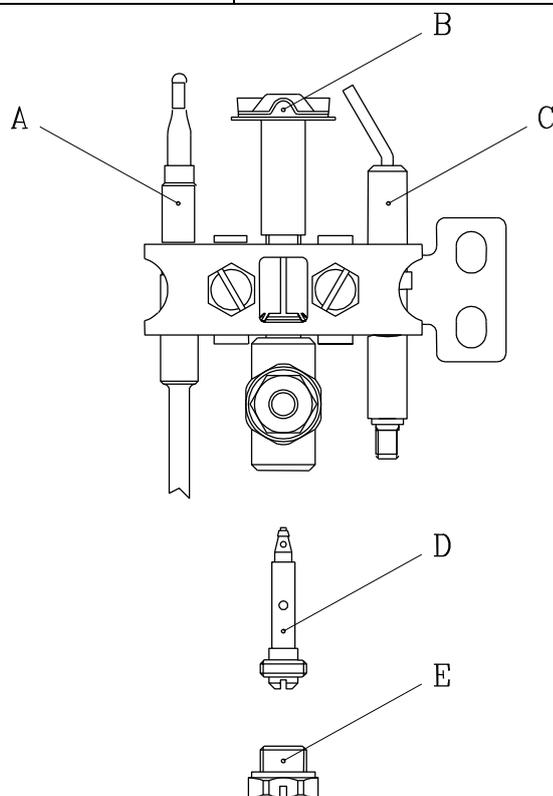
A	Thermocouple nut	E	Rated output adjustment screw
B	Gas output	F	Gas inlet
C	Outlet pressure intake	G	Gas connection for pilot burner
D	Inlet pressure intake	H	Minimum output adjustment screw



4.4. PILOT BURNER

LEGEND:

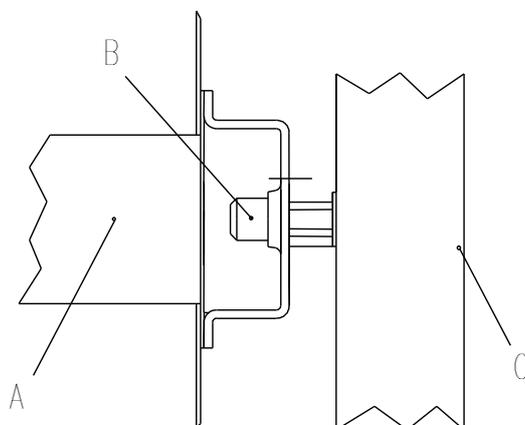
A	Thermocouple	D	Injector
B	Pilot burner	E	Tightness screw
C	Ignition plug		



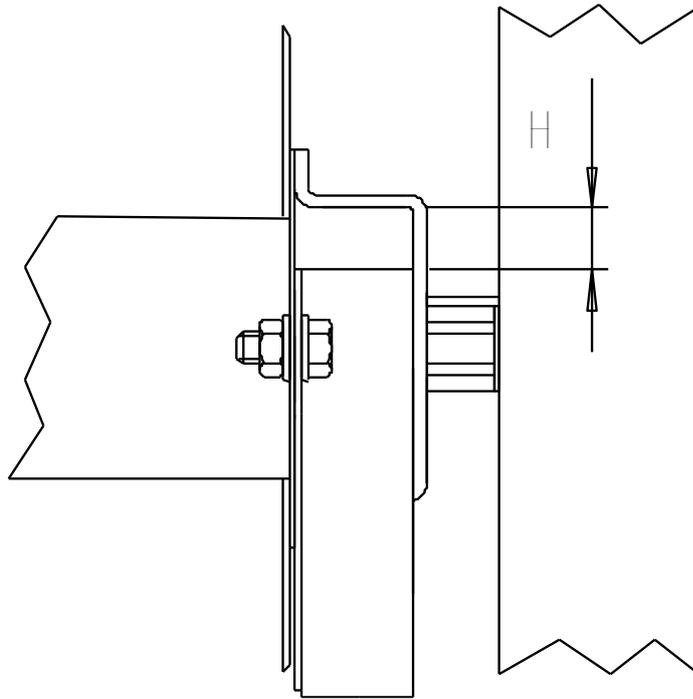
4.5. MAIN BURNER

LEGEND:

A	Burner	C	Injector pipe
B	Injector		



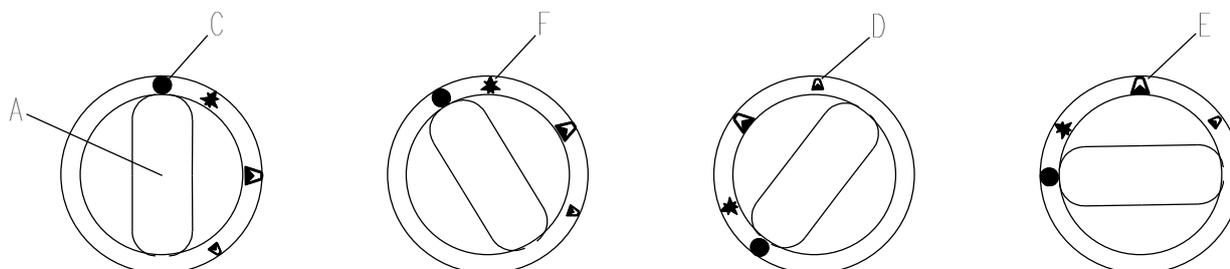
4.6. PRIMARY AIR REGULATION



4.7. CONTROLS

LEGEND:

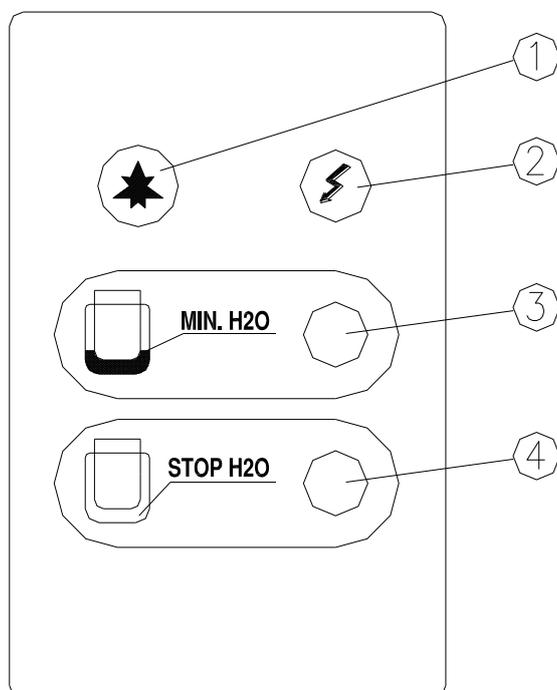
A Knob	D Minimum position
C OFF position	E Maximum position
	F Pilot flame position



4.7.1. CONTROLS (MOD. PM1IG200/300/500 PM9IG170/270/370GN)

LEGEND:

1 Burners ignition button	3 Finishing water orange lamp signal
2 In-tension green lamp signal	4 Missing water red lamp signal

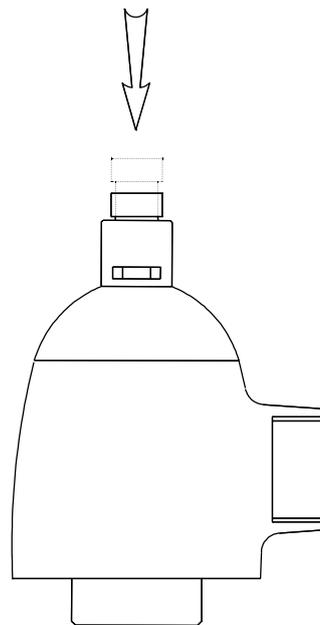
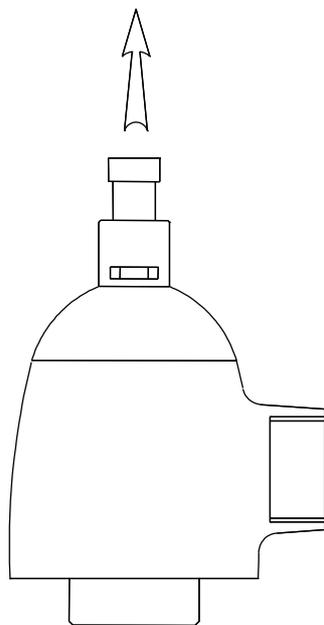


4.8. RELIEF VALVE (ONLY PRESSURE KETTLES)

LEGEND:

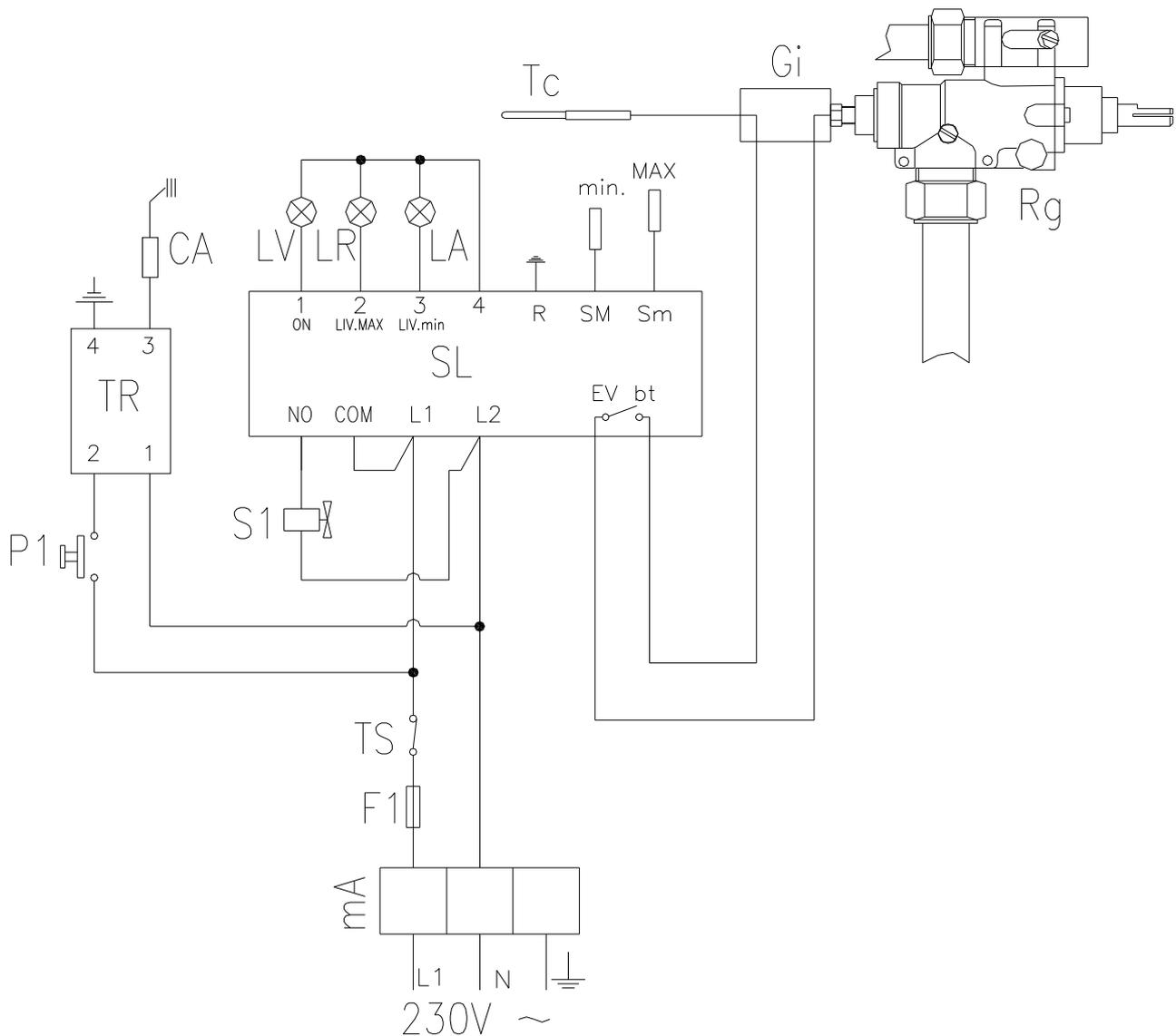
Valve in operating position

Valve in open position



4.9. WIRING DIAGRAM
(MOD. PM1IG200/300/500 PM9IG170/270/370GN)

LEGEND:			
mA	Terminal board line arrival	Tc	Safety thermocouple
F1	Fuse 3,15 A-T	Gi	Interrupt joint thermocouple
SL	Level control device	Rg	Gas tap
LV	In-tension green lamp signal	Pa	Switching on button
LR	Finishing water orange lamp signal	TR	Transformer for ignition
LA	Missing water red lamp signal	Ca	Ignitor candle
TS	Safety thermostat	S1	Double racket charge solenoid valve (optional PAAR)



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