



# F900 SERIES

User, installation and servicing instructions

## BOILING PAN

G9781

**Read these instructions before use**

**DATE PURCHASED:**

\_\_\_\_\_

**MODEL NUMBER:**

\_\_\_\_\_

**SERIAL NUMBER:**

\_\_\_\_\_

**DEALER:**

\_\_\_\_\_

**SERVICE PROVIDER:**

\_\_\_\_\_

**T100915**

REV. 1

Dear Customer,  
Thank you for choosing Falcon Foodservice Equipment.

This manual can be downloaded from [www.falconfoodservice.com](http://www.falconfoodservice.com) or scan here.



**IMPORTANT:** Please keep this manual for future reference.

## Falcon Foodservice Equipment

### HEAD OFFICE

Wallace View, Hillfoots Road, Stirling. FK9 5PY. Scotland.



### WEEE Directive Registration No. WEE/DC0059TT/PRO

At end of appliance life, dispose of appliance and any replacement parts in a safe manner, via a licensed waste handler. Appliances are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.



- **These instructions are only valid if the country code appears on the appliance. If the code does not appear on the appliance, refer to the technical instructions for adapting the appliance to the conditions for use in that country.**
- **Installation must meet national or local regulations. Attention must be paid to: gas safety (installation & use) regulations, health and safety at work act, local and national building regulations, fire precautions act.**
- **To prevent shocks, all appliances must be earthed.**
- **This equipment is for professional use only and must be used by qualified persons.**
- **The installer must instruct the responsible person(s) of the correct operation and maintenance of the appliance.**
- **Only competent persons are allowed to service or convert the appliance to another gas type.**
- **Gas appliances must have a stop cock fitted in the supply pipe work. The user must be familiar with the location and operation of this device in order to turn off the supply of gas in the event of an emergency.**
- **Unless otherwise stated, parts which have been protected by the manufacturer must not be adjusted by the installer.**
- **Take care when moving an appliance fitted with castors.**
- **The appliance must be serviced regularly by a qualified person. Service intervals should be agreed with the service provider.**

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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.

Read these instructions carefully!

Only personnel trained for its specific use should use the equipment.

Keep the appliance under observation 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 DETAILS

**Table 1 – General data**

Model	Type of heating:	Vat usable volume: l	Pressure in the vat: bar	Jacket pressure: bar
100LT	Direct	100	--	--
100LT	Direct	100	0,05	--
100LT	Indirect	100	--	0,5
100LT	Indirect	100	0,05	0,5

**Table 2 – Sizes (Refer to Section 4.1)**

Specifications		Models
Description	Unit of measurement	100LT
<b>Width (A)</b>	<b>mm</b>	800
<b>Depth (B)</b>	<b>mm</b>	900
<b>Height (C)</b>	<b>mm</b>	900
<b>Vat diameter</b>	<b>mm</b>	600

**Table 3 – General water data**

Specifications		Models
Description	Unit of measurement	100LT
<b>water connection</b>	<b>mm</b>	3/4"
<b>Water pressure</b>	<b>kPa</b>	50 – 300

**Table 4 – Minimum output setting**

	100LT
G 20 – 20 mbar	2,5 mbar
G 30 – 28-30/37 mbar	3 mbar

**Table 5 – Gas data**

Description			100LT	Lower calorific value H <sub>i</sub>
Rated heating power			kW	21
Minimum power			kW	7
Gas connection			R"	½"
Consumption	G20 – 2H		m <sup>3</sup> /h	2,22
	G30 – 3+		Kg/h	1,65
Nozzles diameter in 1/100 mm	G20	20 mbar	Pilot	40
			Maximum	3 X 205
			Minimum	ADJUST.
	G30	28-30/37 mbar	Pilot	20
			Maximum	3 X 135
			Minimum	ADJUST.
Primary air distance	G20	mm	30	
	G30			

**Table 6 – Gas inlet pressure**

Table 6a	Gas family 2 – Natural	20 mbar
Nominal main pressure for the different types of gas	Gas family 3 –LPG	28-30/36 mbar
Table 6b	Gas family 2 – Natural	da 16 a 25 mbar
Operation permissible if pressure is in the range:	Gas family 3 –LPG	da 20/25 a 35/45 mbar
Table 6c	Gas family 2 – Natural	16 mbar
Operation non permissible if pressure is lower than:	Gas family 3 –LPG	20/25 mbar
Table 6d	Gas family 2 – Natural	25 mbar
Operation non permissible if pressure is higher than:	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 pan is stainless steel AISI 316, thickness 20/10.

Lid is stainless steel, hinged and spring-balanced in all opening positions.

Chrome-plated brass drainage tap.

Pan 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 piezo electric ignition.

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 water connection is 3/4".

The appliance is equipped with a mixer tap.

#### **1.3.1 SPECIAL FEATURES FOR PRESSURE KETTLES**

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 FOR INDIRECT KETTLES**

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 INSTALLATION CONFORMITY**

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.

## SECTION 2

### 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 50mm between rear flue 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 should install, maintain and test this 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 WATER SUPPLY

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 3/4" 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 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 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" (refer to Section 4.6 "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 GAS TYPES**

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 MAIN BURNER INJECTORS**

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, undo the screws and remove.

Use a fixed wrench SW11 to remove 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 PILOT BURNER INJECTORS**

The pilot burner injector is accessed by removing the lower front panel. Remove the side and lower screws.

The pilot burner is in the front of the combustion chamber.

Undo the screw and replace the injector with an appropriate one.

### **2.5.3 MINIMUM OUTPUT ADJUSTMENT**

When appliance has been switched on, set control to minimum position.

Remove control knob to reveal a small hole on the panel of the appliance.

Turn the minimum adjustment screw on the control 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**

**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 TROUBLESHOOTING

**Warning!** Only qualified service personnel can perform the operations described below!

**Warning!** Before resetting 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><b>The content of the pan does not heat:</b></p> <ul style="list-style-type: none"> <li>– Safety thermostat has been activated.</li> </ul> <p><b>Pilot burner is on but main burners do not light:</b></p> <ul style="list-style-type: none"> <li>– loss of pressure in gas supply;</li> <li>– clogged injectors on main burners.</li> </ul> <p><b>Pilot burner does not light:</b></p> <ul style="list-style-type: none"> <li>– clogged injectors on pilot burner;</li> <li>– faulty ignition plug;</li> <li>– check the cable of the ignition plug.</li> </ul> <p><b>Pilot burner does not remain lit:</b></p> <ul style="list-style-type: none"> <li>– faulty thermocouple;</li> <li>– partially clogged injector on pilot burner;</li> <li>– faulty magnet in control.</li> </ul>	<p><b>Safety thermostat</b> The safety thermostat can be accessed by removing lower front panel when the two side screws have been undone.</p> <p><b>Main burners</b> Remove lower front panel.</p> <p><b>Pilot burner</b> Remove lower front panel. Pilot burner is located in front of combustion chamber.</p> <p><b>Ignition plug and thermocouple</b> Remove lower front panel.</p>

## 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 and must be used only by trained kitchen staff.

The appliance must always be kept under observation during use.

**Warning!** The manufacturer shall not be held responsible for injuries or damage due to non-compliance with safety rules or improper use of 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 with Serviceline.

In case of failures concerning the appliance, all supplies (gas and water) must be isolated immediately. In the case of recurrent failure, contact a service technician.

## 3.2 INSTRUCTIONS FOR USE

Before cooking for the first time, wash the pan interior out thoroughly.

**Warning!** Fill pan up to a maximum of 40mm below overflow border, according to the maximum level mark, including the food to be cooked.

### 3.2.1 FILLING THE JACKET – INDIRECT MODELS

**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!

Unscrew filling cap on safety valve unit. The latter is on the right of the appliance surface (Refer to Section 4.1).

Fill with softened water (jacket capacity is stated in Section 1.2).

Check water level by looking through hole on the left of front panel.

Screw the cap of the safety device back on.

### 3.2.2 USING THE PRESSURE KETTLE LID

Before switching on the appliance, close the lid firmly and tighten the 4 clamps.

The pan interior 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 COOKING / SWITCH OFF

The appliance is equipped with a selector to start all cooking operations (Refer to Section 4.7).

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 knob from position “□” anticlockwise to position “□”, press knob and at the same time, press piezo electric ignition button repeatedly.

When pilot flame is lit, keep knob pressed in for a few seconds until thermocouple heats up.

#### **Starting cooking – igniting main burner:**

Turn knob left to position “□” or to minimum position “□” to light burner.

Generally cooking is started by setting knob to maximum heating position. When pan has reached cooking temperature, turn knob to low position to maintain cooking temperature.

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

Turn knob clockwise to position “□” to turn off main burner; the pilot flame will remain lit. Turn knob to position “□” to extinguish pilot burner. (Refer to Section 4.7).

### **3.3 CLEANING AND CARE OF 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 pan 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. Such substances may cause damage and quickly affect the tightness of the gasket.

### **3.4 PROCEDURES IN THE CASE OF EXTENDED INACTIVITY**

If appliance is to be idle for any length of time (e.g. holidays or seasonal closing) it must be cleaned thoroughly, leaving no traces of food or dirt.

Leave the lid open so that air can circulate inside the pan.

For added care after cleaning, 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 PROCEDURE IN CASE OF FAILURE

If appliance should not operate properly during use, turn it off immediately and isolate 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 probable situations and controls that the operator should perform to avoid an unnecessary service call.

If the problem is not solved after these checks, turn appliance off immediately and isolate gas and water supplies before calling your service agent.

Pan contents do not heat up:

Check mains gas in the mains and that control is open;

Check that main burners are on.

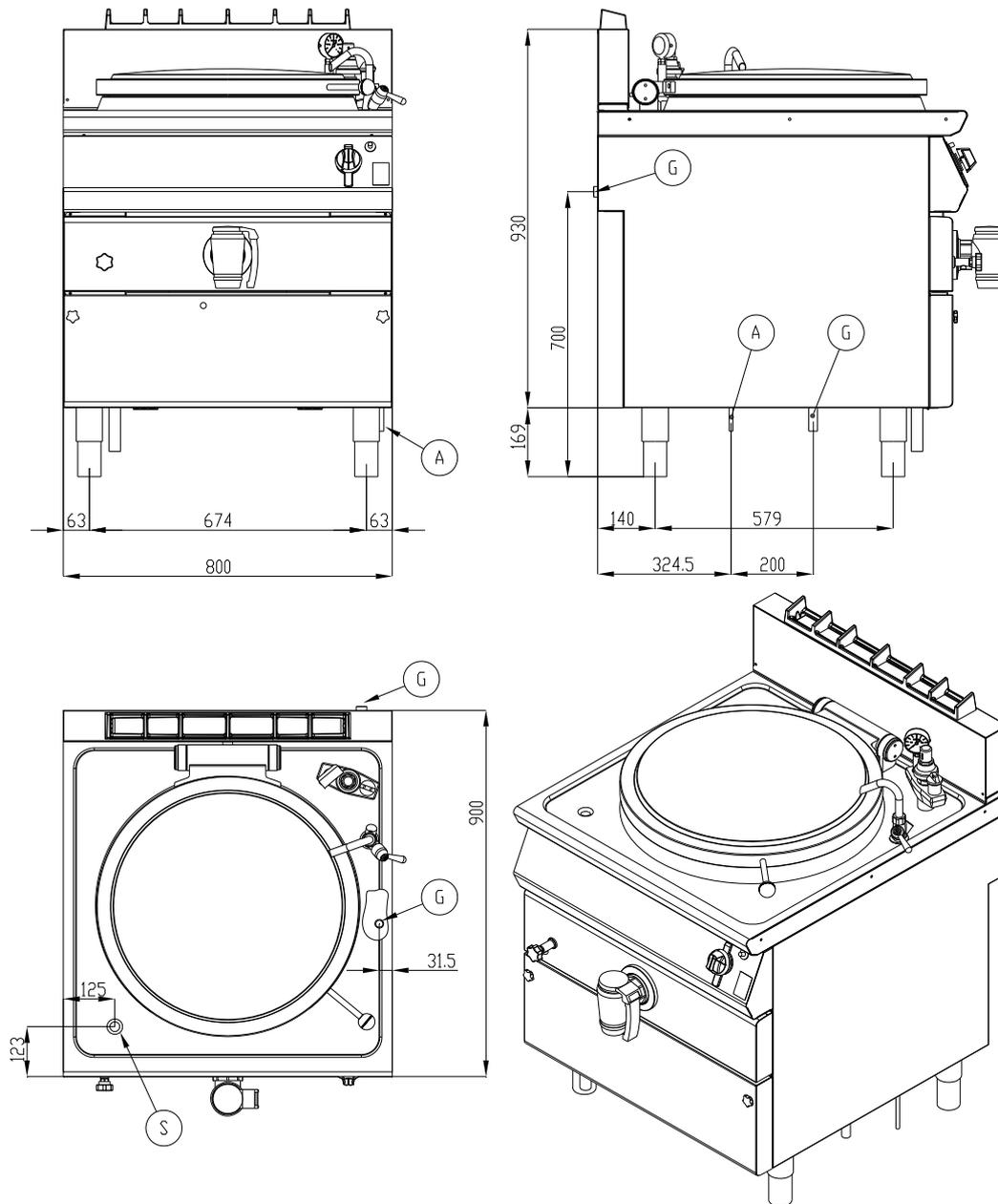
Otherwise turn unit and call a service agent. The safety thermostat may have been activated because the pan has overheated. This will occur especially when the appliance is started and the pan is empty or when the appliance needs servicing because the burners may be dirty and/or clogged.

#### 4.1 MODEL DIMENSIONS

S. Overflow

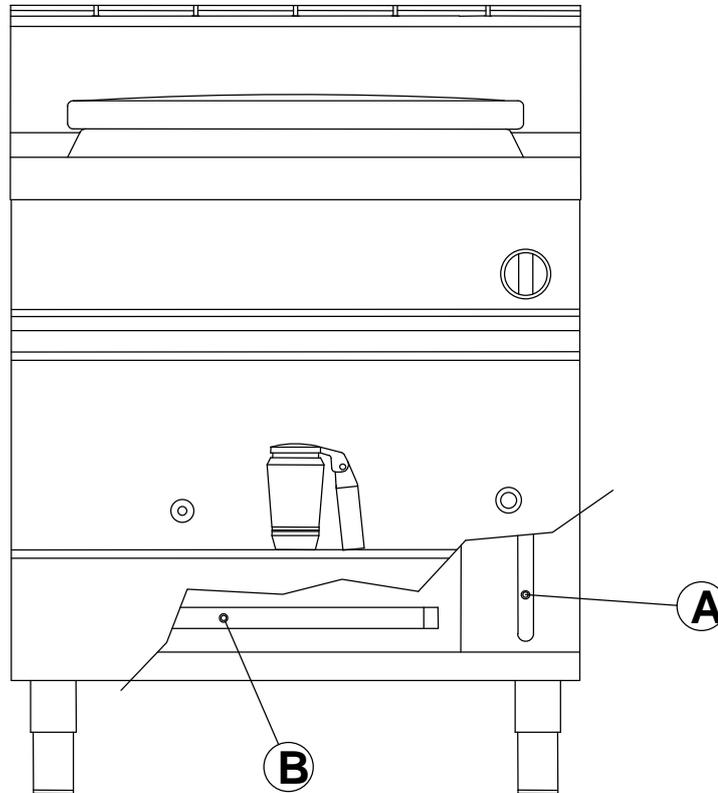
A. Water connection 3/4"

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



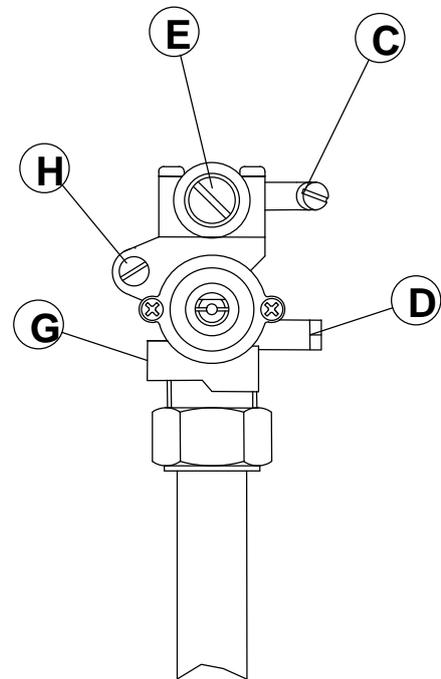
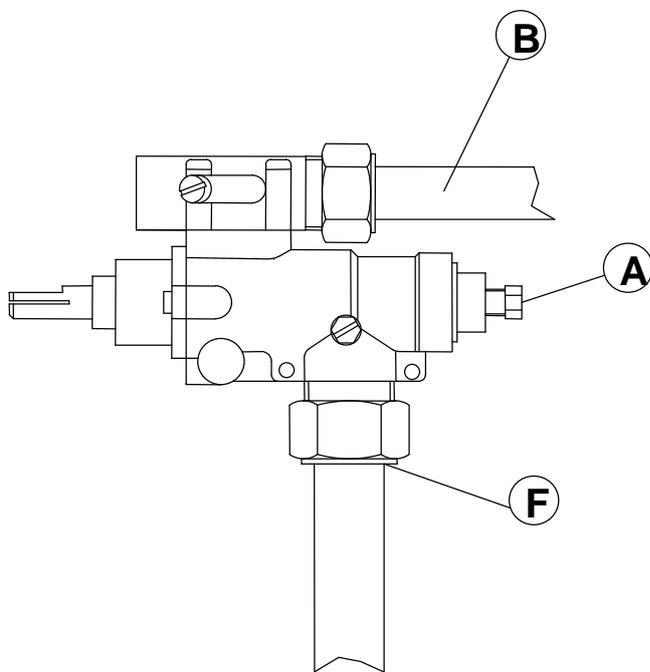
## 4.2 MEASURING INLET PRESSURE

- A. Inlet pressure intake
- B. Outlet pressure intake



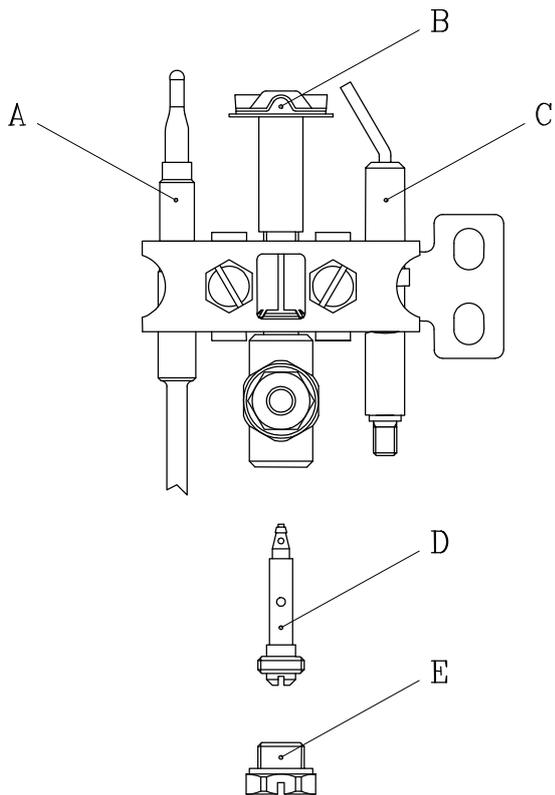
### 4.3 GAS COCK

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



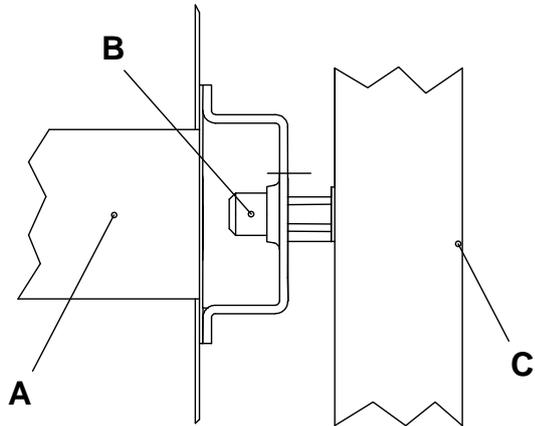
#### 4.4 PILOT BURNER

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

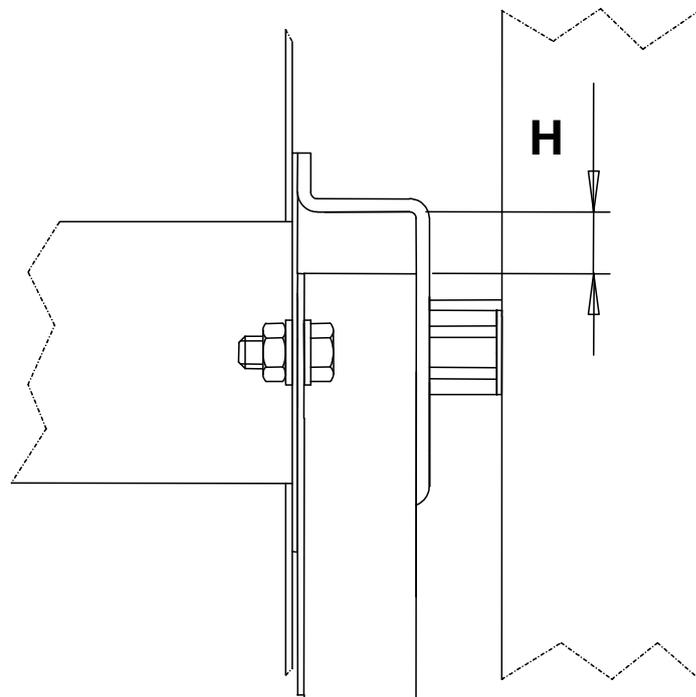


#### 4.5 MAIN BURNER

- A. Burner
- B. Injector
- C. Injector pipe

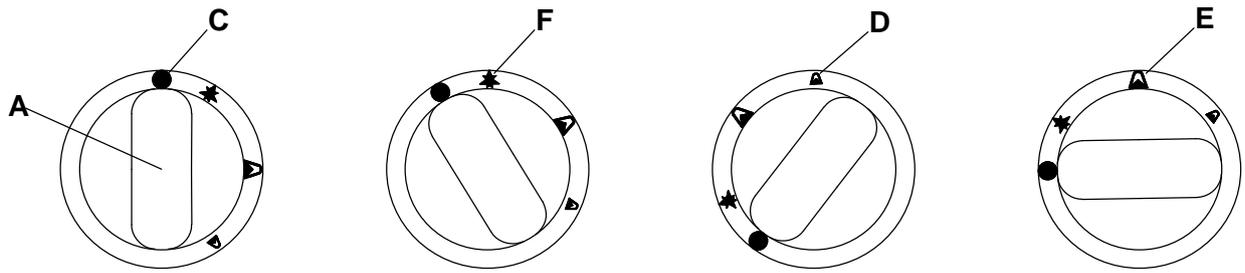


#### 4.6 PRIMARY AIR REGULATION



#### 4.7 CONTROLS

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



#### 4.8 RELIEF VALVE (Pressure Kettle Only)

