USER MANUAL

PROFESSIONAL SPIT-ROAST ROTISSERIE OVEN

MAGFLAM + MAGFLAM SHORT GAS series models:
MAGFLAM 3
MAGFLAM 5
MAGFLAM 8

Dear customer,

You have recently purchased a DOREGRILL rotisserie oven.

Thank you for choosing our equipment. We have been working hard to perfect the reliability, convenience and presentation of our products for over sixty years.

DOREGRILL is always at the cutting edge in our field. We pour all our skills and experience into our ovens to ensure that we meet your expectations by striving to combine comfort and safety.

In our range, you can also find a selection of display windows and cooking modules which you can use alongside your rotisserie oven.

In order to familiarise yourself with your new product as quickly as possible and to make the most out of it, please read this user manual carefully. It will enable you to use every function on your oven and extend the product's life.

We are always seeking to meet your expectations in regard to our products. Our technical team is on hand to guide you through installation and start-up, and reply to any questions and suggestions you may have. Please feel free to contact us or visit our website: www.doregrill.com

DOREGRILL S.A.S.
12, rue du Moulin – B.P. 52 – Parc d'Activités du Moulin,
44880 SAUTRON
Tel: +33 (0)2 40 63 80 00 – Fax: +33 (0)2 40 63 82 67
e-mail: doregrill@doregrill.com

We are constantly improving our products and services. To achieve this, we reserve the right to modify any technical, functional or visual characteristics relating to product development.

CONTENTS

INFORMATION FOR THE PRODUCT USER

1. GENERAL POINTS

1.1. Labelling

This piece of equipment complies with all applicable European directives. As such, the EC logo appears on the information panel and a compliance declaration is attached to the present document.

- **Manufacturer name and address**
- **EC labelling**
- **Equipment model (MOD)**
- **Electrical power (kW/A)**
- **Machine serial n° (MATR)**
- **Voltage and frequency (Volt/hertz)**
- **Year of manufacture**

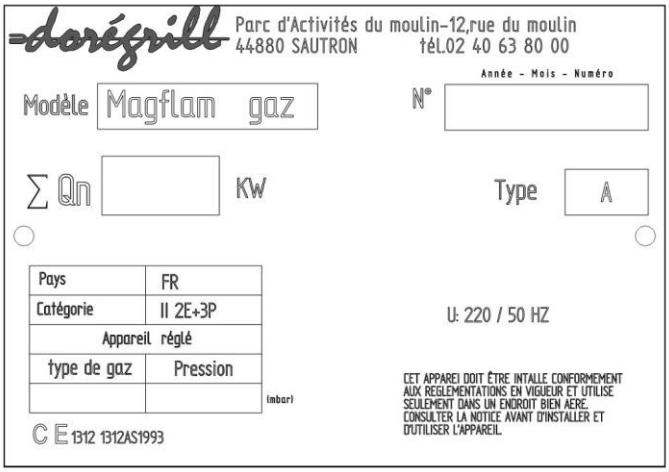


Figure 1 *- (Information panel)*

This panel is attached to the left hand side of the rotisserie oven, on the bottom of the technical cabinet door.

If changing the type of gas used, the information panel which corresponds to the new configuration will be provided with the transformation kit. You must replace the original panel with this new panel.

1.2. The importance of the manual

The present set of user instructions aims to provide users of this equipment with all the information they need to make the most out of their rotisserie oven, extend its useable life with regular and appropriate cleaning, solve minor problems and incidents which often do not require specialist intervention, and avoid, by following the warnings and recommendations, any risk of injury to the users.

The time and attention you invest in reading this manual will be amply rewarded by the information you obtain, and by avoiding any risk of potentially irreparable damages.
This manual, valid for the **MAGFLAM 3, MAGFLAM 5 and MAGFLAM 8** models, is an integral part of our rotisserie ovens, and must remain accessible to the operators.

The manufacturer is not responsible for any damage caused to people, animals or property caused by misuse of the equipment or non-adherence to the rules included in the manual.

IMPORTANT: This equipment is for professional use. As such, and in order to avoid any danger, it must only be used by qualified personnel.
All components which are protected by the manufacturer or their representative must not be handled by the installer or the user.
It must be installed in compliance with current regulations, in a well-ventilated area. The installation, calibration and maintenance operations must be conducted by a qualified "Gas" technician.
In the event that you wish to change the gas input, and in order to fully adhere to the 90/396/CEE European Directive concerning gas equipment, you must order the various components required for the transformation from the DOREGRILL Company and ensure that the transformation is completed by a qualified "Gas" technician.

1.3. Reserved rights

The reserved rights concerning this "*MAGFLAM series gas rotisserie oven user manual*" remain the property of the manufacturer. No part of the manual may be reproduced or distributed without prior written authorization by the manufacturer.

1.4. General precautions

This equipment is not suitable for use by people (including children) with reduced physical, sensory or mental capacities, or by people with insufficient knowledge or experience unless they are supervised or instructed in equipment safety by a person responsible for their safety.

In order to reduce the risk of serious burns, this oven MUST be placed against a wall or against the shop façade.
The rear of the Rotisserie oven does not give any visual clues concerning its functions, or of the potential danger relating to extreme temperatures.
If it is not possible to position the machine against a wall, the user must implement all means necessary to protect passers-by from any contact with the Rotisserie oven (safety barrier, wall, etc.)

1.5. Guarantee

The manufacturer guarantees that the rotisserie ovens listed have been subject to tests and trials in our workshops.
The guarantee for these rotisserie ovens is 12 (twelve) months. Please see the Guarantee Certificate attached to your invoice.

The use and/or replacement of components by non-original parts will void the guarantee and release the manufacturer from all responsibility.

2 TRANSPORT AND HANDLING

2.1 Transport and delivery

Our rotisserie ovens are calibrated, tested and checked in our workshops. They are carefully packaged in order to guarantee that they arrive at their destination in the best possible conditions.

They are delivered on a pallet, strapped down and covered in film. The oven is protected by cardboard packing, bubble-wrap, polystyrene and foam corner protection pieces. These will protect the oven under normal transport conditions.
Once the equipment is unwrapped, ensure that it has not been damaged during transport. Any damage must be observed and reported in the presence of the transporter. The terms listed on the Delivery Document must be followed, within 48 hours of receiving the equipment, using a recorded-delivery letter with proof of delivery to the transporter and the retailer must be alerted.

2.2 Unpacking and handling

When unpacking your oven, do not pierce the bubble wrap packing with an object which could damage any of the components.
The oven can be moved around flat surfaces using its castors. If the oven must be lifted, you must use a forklift truck with the fork passed under the base.

3 TECHNICAL DESCRIPTION

3.1 General description

The MAGFLAM 3 and 6 models are mounted on a trolley or castor-mounted storage unit.

The MAGFLAM 8 rotisserie oven is mounted on a support trolley with 4 castors, 2 of which have brakes.

It comprises:

- A structure (*base, ceiling, lateral and rear cladding*) in brushed stainless steel. The ceiling and all of the internal vertical walls are made from enamelled sheet steel to facilitate cleaning.
- At the rear are burners (*European standards*) fitted with twin safety systems for ignition and use, with fire-bricks around them. The burners are separated using enamelled sheet steel deflectors which can easily be dismantled.
- Motorised Simplifil spits, each mounted directly on a motor, using an independent electrical reducer motor fitted with a hollow, flared connector piece for easy spit insertion.
- A spit support unit located on the side opposite the motors.
- On the base, a stainless steel fat tray fitted with a drainage tap (*See "User information – Chapter 3 – Technical description" page 14, ref. 8-14*)

- Two tempered steel doors on hinges, with a 120° keep-open system.

- Two Vitro-ceramic quartz lamp-projectors, protected by tempered glass screens and set into the ceiling of the oven, providing powerful lighting.
- A control panel

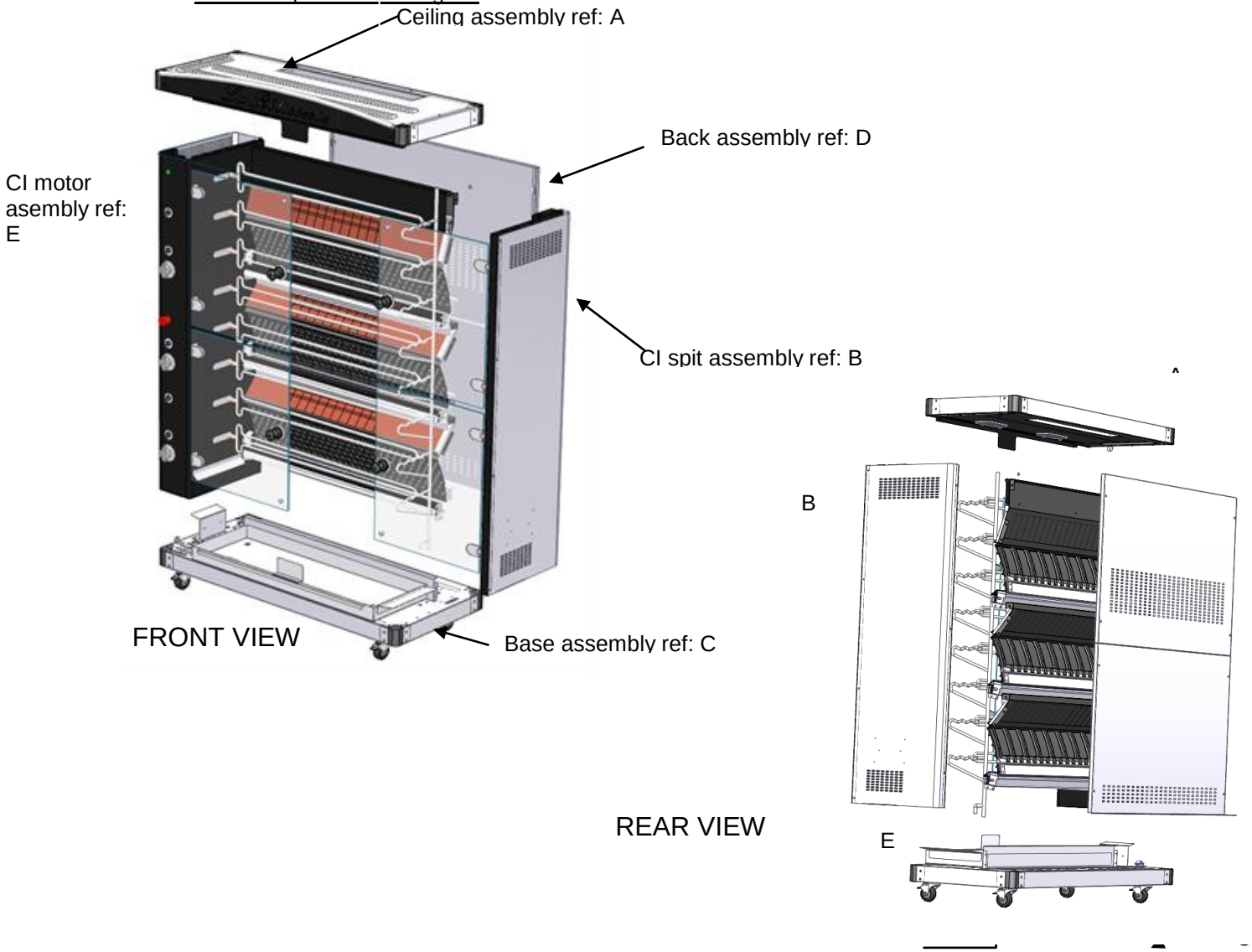
- For the MAGFLAM 8, a reinforced tubular frame mounted on 4 pivoting castors – two of which have brakes. (*See "User information – Chapter 3 – Technical description" page 12, ref. 1-3*)

At the back, a 20/27 or ¾ gas inlet control tap for the oven, and a 3G2.5 electric cable fitted with a single-phase male-connector 10/16Amp cable with earth connection for the electrical connection.

3.2 Component parts

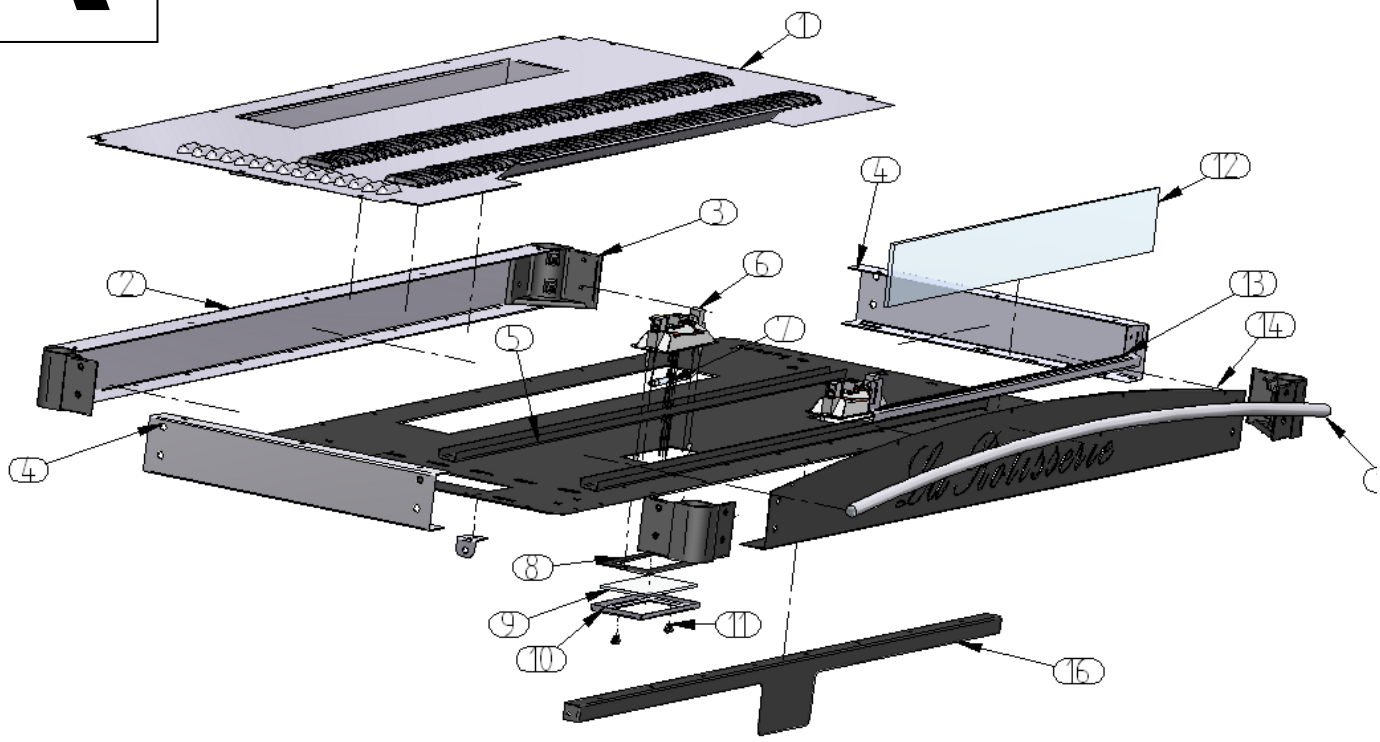
The various components of the rotisserie oven are listed in *Fig. 2* below, with details further down.

3.2.1 General exploded-view diagram



A

EXPLODED VIEW OF THE MAGFLAM CEILING



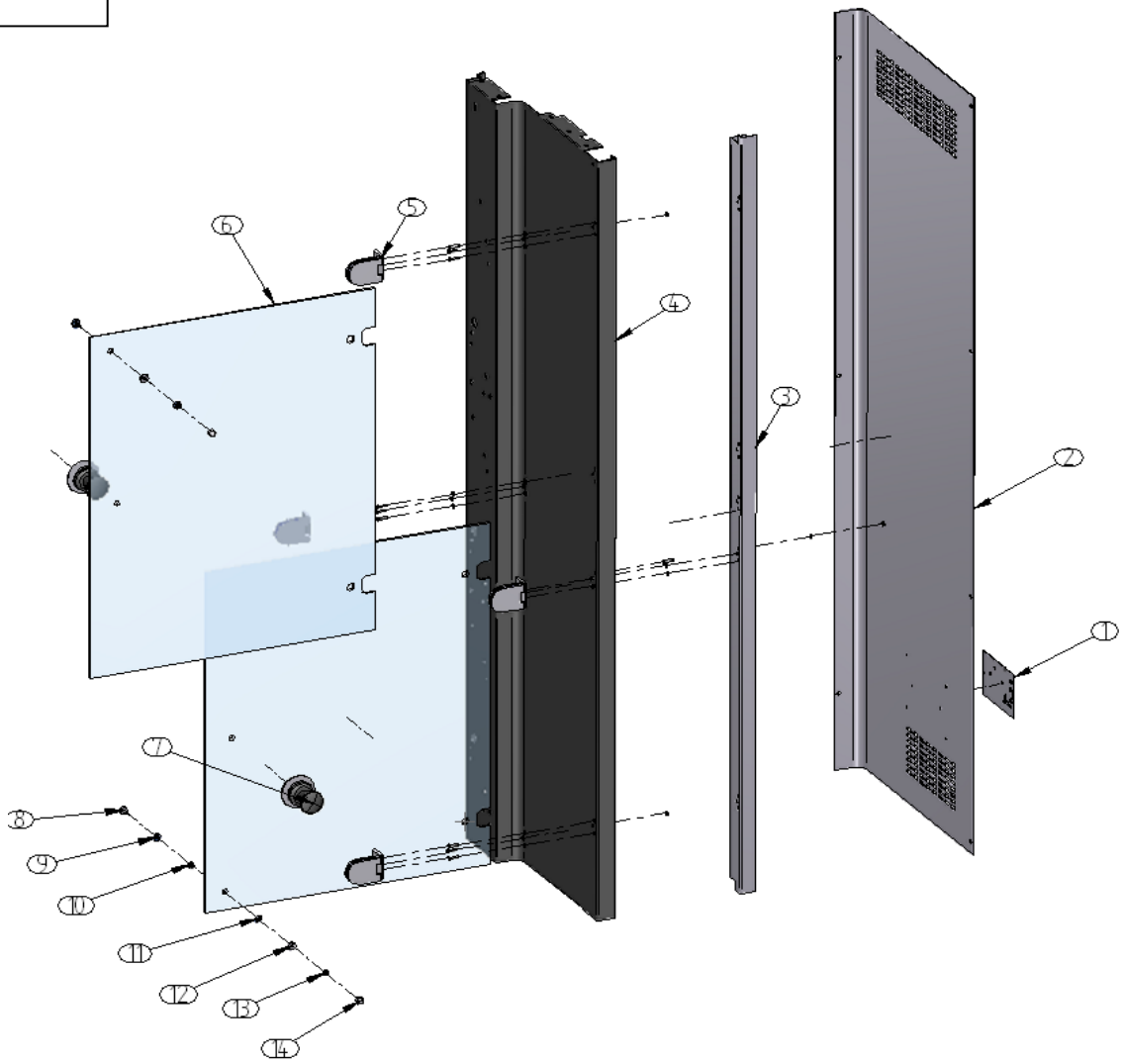
Components

N°	Name	Number	N°	Name	Number
1	Top	1	**9**	Quartz protector glass	2
2	Rear top U	1	**10**	Quartz protection	2
3	80mm bracket	4	**11**	Wing nut	4
4	Top side U	2	**12**	Text window	1
5	Ceiling	1	**13**	Lighting system (plate on a domino support)	1
6	Lighting system (plate on a domino support)	1	**14**	Rounded front header	1
7	Quartz lamp	1	**15**	Rear rotisserie bar	1
8	Joint	2	**16**	Head guard	1

B

EXPLODED VIEW OF THE

MAGFLAM 8 CI SPIT SYSTEM

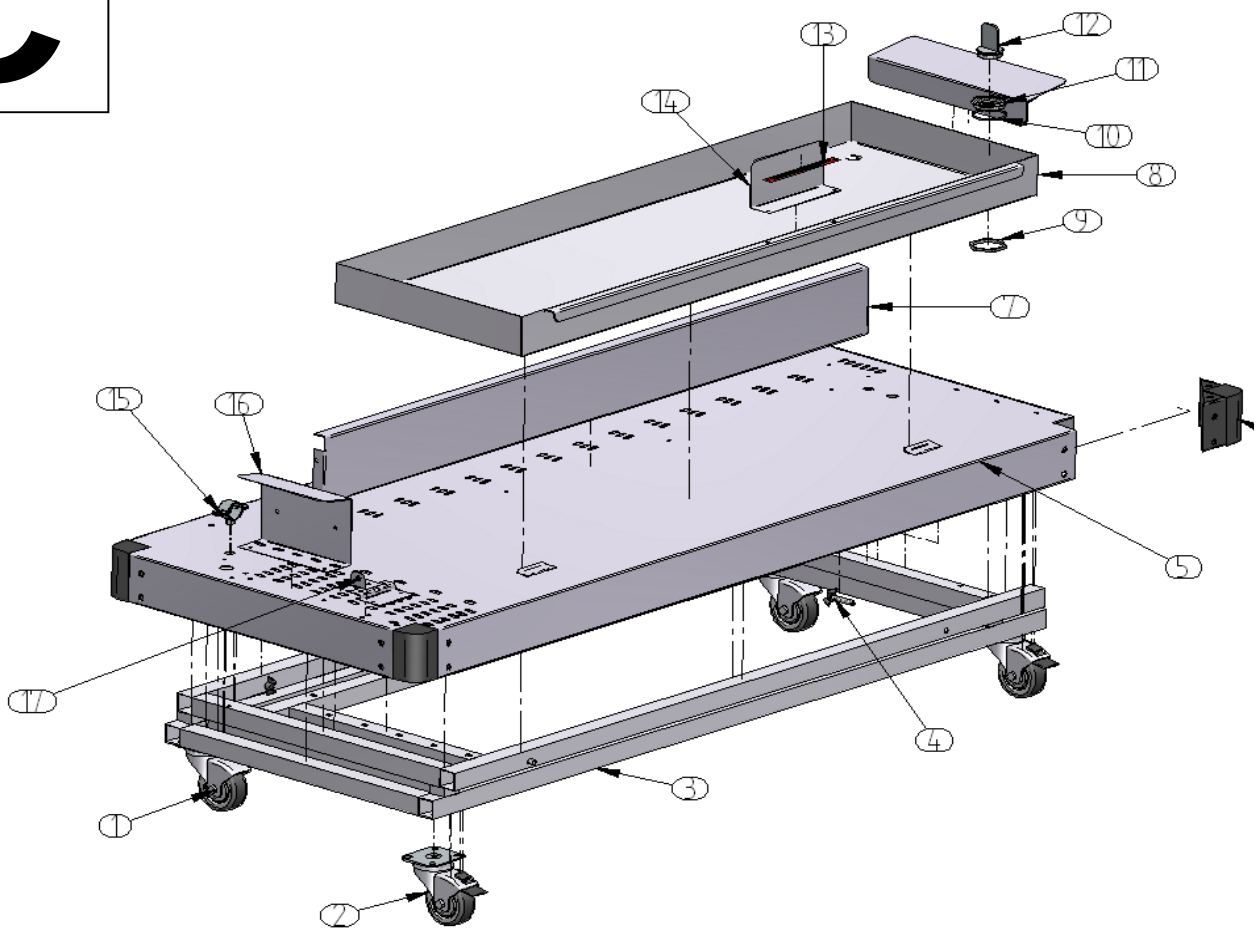


Components

N°	Name	Number	N°	Name	Number
1	Information panel	1	**8**	Screw-on magnet	2
2	CE spit	1	**9**	Klinger washer	4
3	CI U reinforcement	1	**10**	Strut Ø12	10
4	CI spit	1	**11**	Klinger washer	4
5	Hinge	4	**12**	Stainless steel washer	4
6	Window N°524	2	**13**	Fan washer	4
7	Handle system	2	**14**	Cap nut M6	2

C

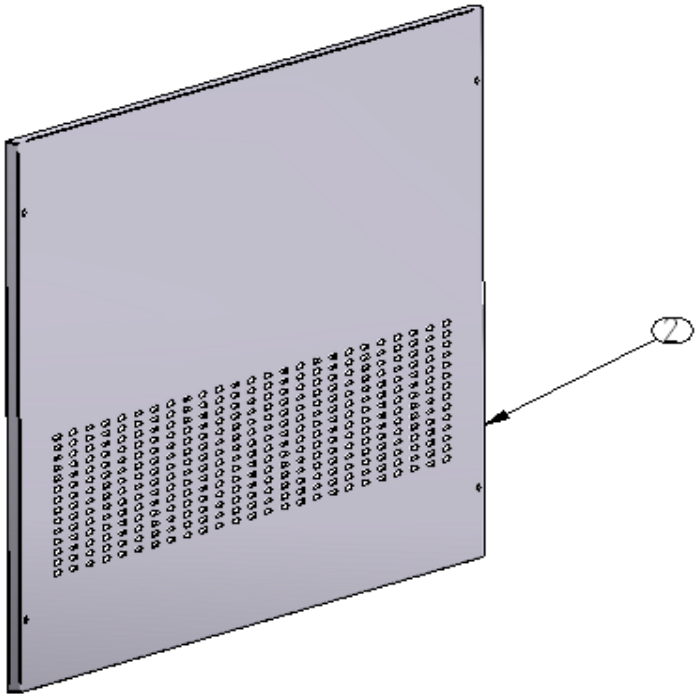
EXPLODED VIEW OF THE MAGFLAM 8 BASE

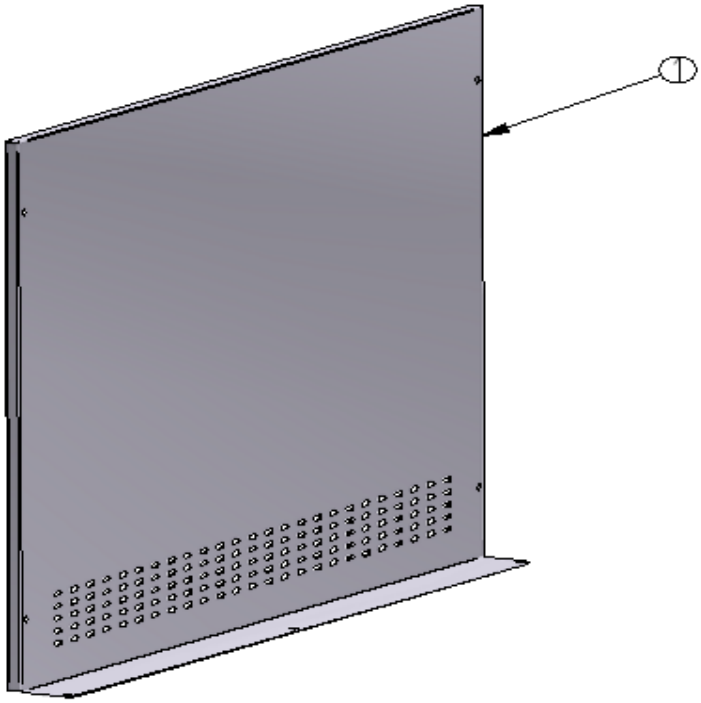


Components

N°	Name	Number	N°	Name	Number
1	Brakeless castor	2	**10**	Joint	1
2	Castor with brake	2	**11**	Drainage tap base screw	1
3	Trolley	1	**12**	Drainage tap	1
4	Trolley fixing screw	4	**13**	Flat label safety panel	1
5	Base	1	**14**	Tray stop	1
6	Window N°524	2	**15**	Collar	1
7	Handle system	2	**16**	Terminal support	1
8	80 mm bracket	4	**17**	Bracket	
9	Drainage tap base screw	1			

D EXPLODED VIEW OF THE MAGFLAM 8 CEILING



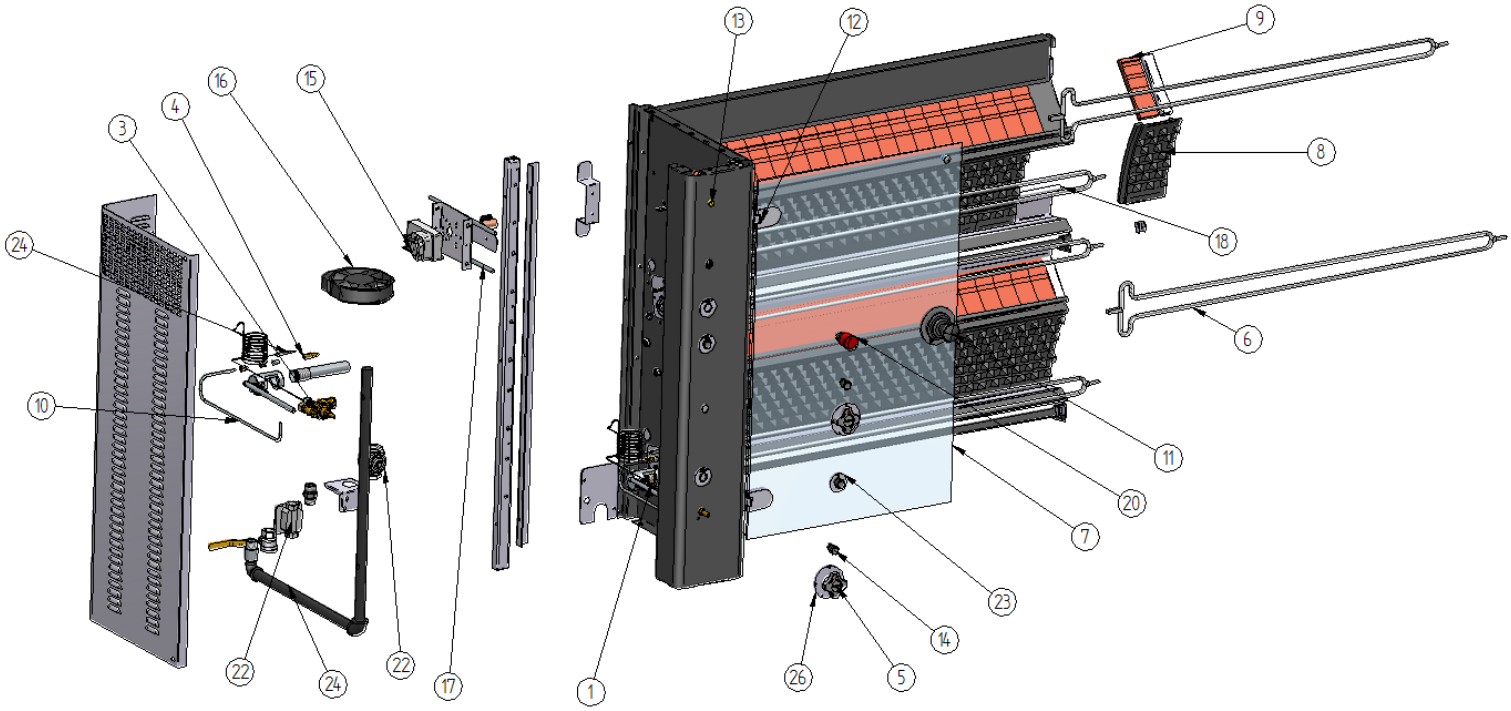


Components

N°	Name	Number	N°	Name	Number
1	Lower base	1	**2**	Upper base	1

E

EXPLODED VIEW OF THE MAGFLAM 5
CI MOTOR



Components

Spare parts	
Component names	**N°**
2014-model burners (17Kw fed by Flex tube Ø12)	1
Gas safety tap for outlet pilot light Ø 12	2
Taps	3
Pilot light	4
Gas tap controllers	5
Simplifil spit	6
Windows	7
Cast iron units	8
Briquettes	9
Pilot light feed tube	10
Door handles Ø50 x 45	11
Mecagil hinges	12
Green indicator light Ø 12.7	13
Black switch 0/1	14
SPG motor + connectors + joints	15
Fan (119 x 119)	16
Motor spindles Ø10 x 300 mm	17
Cast iron tube supports Ø 21 x 1200mm	18
Indication for gas taps	19
Emergency stop button	20
Gas pressure regulator	21
Gas inlet tap	22
Indication switch 1/0	23
Gas manifold +1/4 turn valves	24
Thermocouple	25

3.3 Rotisserie oven dimensions

See "User information – Chapter 8 – Technical characteristics p. 23"

3.4 Technical data

See "User information – Chapter 8 – Technical characteristics p. 23"

3.5 Intended use

Our rotisserie ovens are intended to be used to cook meat and poultry, prepared as part of the hot food and delicatessen offerings for professionals in the food industry.

3.6 Electrical plans

See "Appendices – Chapter 11 – Electrical plans p. 36 to 38"

4 INSTALLATION

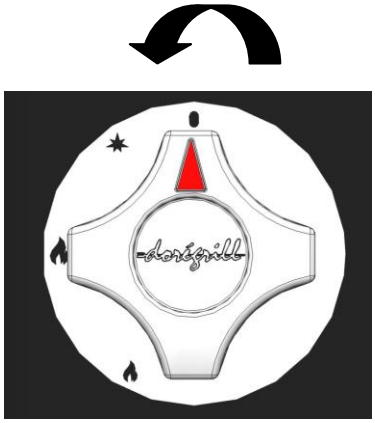
4.1 General instructions

The rotisserie oven must be installed (in terms of position and connection) by authorized personnel with the necessary technical and professional skill to install the oven according to the current standards in the country of use.

See "User information – Chapter 9 – Installation p. 21 to 30"

5 USE

5.1 The controls



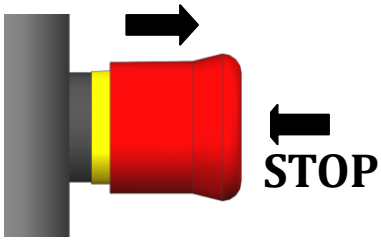
- **Gas taps**

Each of these buttons controls a burner.
First, turn off the lights.

Turn on the tap: press the tap down and turn it left to the ★position, keeping it pushed down. Wait a few seconds before lighting the gas at the pilot light, then release (*safety*). Next, turn it to 🔥 in order to light the burner, then choose the strength with the large or small flame.

Turn off the tap: turn the tap all the way to the right.

IMPORTANT: The gas taps have a flame adjustment system. This ranges from a large to a small flame, with corresponding symbols on the tap handles.

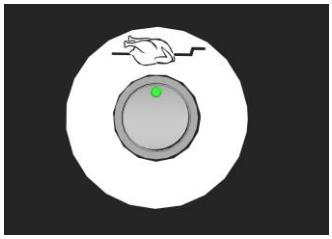


♦ **Emergency stop**

This must only be used in an emergency, to halt the rotisserie oven's electrical functions (*spit rotation, lighting*).

♦ **Spit motor switches**

Each of these control two or three spits which each turn in alternate directions: The spits on even-numbered levels turn in one direction, and those on odd-numbered levels in the other. This enables large chickens to be roasted without any risk of the rotating mechanism getting blocked.

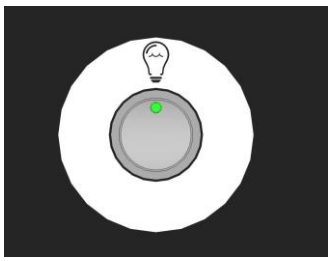


Start-up: Press the I/0 button.

Stopping the spits: Press the I/0 button again.

♦ **Lighting switches**

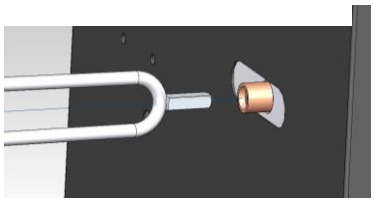
Uses the same type of I/0 button as above.



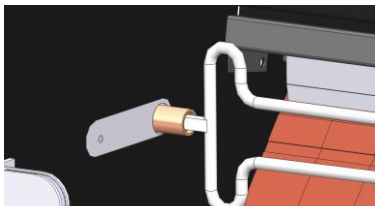
Switching on the lights: Press the I/0 button

Switching off the lights: Press the I/0 button again.

Installing and adjusting the spits

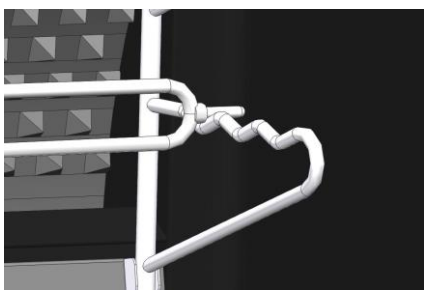


The spits are independent of one another, and their depth can be adjusted. The maximum weight permitted for each motor is 20kg.



Installation: First insert the spit's square end into the flared motor reducer socket and, if necessary, turn is slightly to ensure that it is correctly positioned.
Next, insert the round part, located at the other end, on the support.

Adjusting the spits on the motor side: To adjust their positions, you just need to slide the motor reducer socket.



Adjusting the spits on the support side: The spit support has, at each level, 3 notches. Position the round part of each spit into the desired notch.

5.2 Start-up

It is important to take certain precautions when starting up your gas rotisserie oven to ensure optimum safety.

> **Important:** It is formally prohibited to place trays or any other object on top of the rotisserie, or to obstruct the exhausts or ventilation zones in any way.

♦ **Preparation**

Before starting up your rotisserie oven, ensure (if it is connected to a battery of gas cylinders) that there are sufficient cylinders to power the oven. This will vary according to the ambient temperature. *See "Installer information – Chapter 9 – Table 5 p. 29"*

If your oven is mobile, do not forget to apply the front brakes once you have connected the oven to both a single-phase electrical socket (which must have an earth plug) and a Push[1] type gas connection gas supply.

If desired, switch on the lighting using the push button.

Fill the water tray half-way, and maintain this water level throughout the cooking time.

♦ **Lighting the burners**

Slowly open the valve at the gas supply end or, if using cylinders, the gas pressure regulator on the cylinders. Next, open the tap located behind the rotisserie oven.

> **IMPORTANT:** Always light the burners one be one, starting by the top level and progressively working downwards until you reach the lowest level.
> If you are not using all of the spits, always start with the top ones and protect the unused burners using their respective protectors. This will prevent fat from penetrating the burners (which could damage them).

Only open the left-hand door. With your left hand, fully push down the desired gas tap and turn it to the ★ symbol (pilot) on the left, keeping it pressed down. Wait a few seconds before lighting the pilot light with a gas lighter. Once lit, turn the tap to the larger flame to light the burner. Repeat this process to light all of the desired levels.

[1] The PUSHGAZ name is the property of GIE GAZINOX.

♦ **Cooking**

We recommend piercing your chickens before roasting them in order to improve their colour and texture.
Insert each of the prepared spits according to the method above.

See "User information – Chapter 5 – Installation and adjustment of the spits p. 18"

Adjust the depth of the spits according to the size of the birds to be roasted and the desired cooking time. Start up the spit motor-reducers by pressing the corresponding push buttons.

IMPORTANT: Never use or insert aluminium foil into the rotisserie oven.

In order to avoid fat from spitting outwards and to ensure that the oven functions correctly, the glass doors must remain closed during the cooking time.

Allow for 60 minutes' cooking time for a 1.2kg chicken. However, this time may vary according to the weather, and the quality and thickness of the item being cooked.

At the end of the cooking time, stop the motors to the desired spits and remove them, starting from the support end and extracting the ends in the drive motors.

6 MAINTENANCE

IMPORTANT:
Never use a high pressure cleaning system on the product.
Only use "Oven Special" cleaning products which are approved for use on food equipment [1]
Never spray anything (water, detergent, etc.) on the burners.

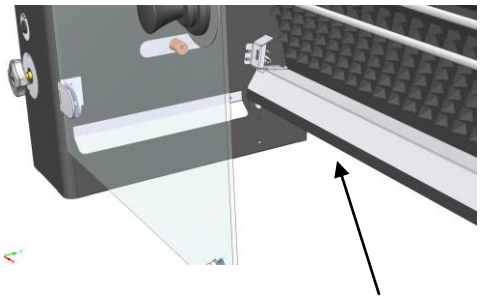
6.1 Daily maintenance after use

While the oven is still warm, cover the burners with the protectors and give the following parts a quick clean:

- the inner walls,
- the base,
- the ceiling,
- the glass on the windows and lights.

Once dismantled, fully clean the:

- spits and accessories,
- the fat tray (after emptying it),
- the deflectors between the burners.



Burner protector

[1] DECAGRILL, distributed by the DOREGRILL Company, is recommended to clean your rotisserie oven

6.2 Weekly cleaning

Clean the top of the rotisserie oven.
Once dismantled, clean the removable grease filter used to trap greasy vapour from the extractor hood using a degreasing cleaning product.

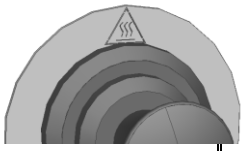
6.3 End of season cleaning (or half-yearly)

This cleaning procedure must be completed by an approved cleaning service provider:

- Inspection of the inside of the technical component housing,
- Wiping the motors,
- Checking the moving parts,
- Cleaning the various electrical components such as the motor-reducers, fans, indicator lights, switches, etc.

> **IMPORTANT:** Current legislation requires that extractor hoods and fans must be cleaned every six months.

♦ **Dismantling the doors:**



> **IMPORTANT:**
> This operation is delicate, due to the fragility of the components and the potentially hot surfaces (heat symbol at the handle).

7 TEMPERED GLASS WINDOWS – THE MAIN CAUSES OF DAMAGE

7.1 Thermal shock

There must not be a temperature difference greater than 80°C between any two points on the glass. When this occurs, the rupture point is reached and the glass can explode at any moment.
E.g. Cleaning a hot window with a cold sponge.

7.2 Impacts on the glass

When a tempered glass window receives an impact, especially on the edge or the corner, a small piece of glass, often the size of a pin-head, may break off.

After this, the molecular equilibrium of the glass is broken. The glass will inevitably break, whether in the hour or within a few days.

This kind of impact may occur when unpacking the equipment, or when the user accidentally strikes the edge of the glass with an accessory (spit, basket, fat tray, etc.) during installation.

7.3 Handling

Ill-timed and frequent movement (e.g. rolling the oven onto the pavement every day) will prematurely weaken the glass surfaces.

> **IMPORTANT**:
> Glass, whether tempered or not, is a fragile material which must be handled with care. It is sensitive to impact, **and in no event can break by itself without one of the aforementioned causes.**

INFORMATION FOR THE PRODUCT INSTALLER

8 TECHNICAL CHARACTERISTICS

		Magflam 3 gas	Magflam 5 gas	Magflam 8 gas
Dimensions				
Total width		1480 mm	1480 mm	1480 mm
Total depth		690 mm	690 mm	690 mm
Height of the rotisserie unit		950 mm	1310 mm	1850 mm
Total empty weight				370 KG
Maximum product load		30 Kg	50 Kg	80 Kg
Technical components				
Spits	Number	3	5	8
	Useful length	1050 mm	1050 mm	1050 mm
Drive motors	Number	3	5	8
	Unitary power	30 Watts	30 Watts	30 Watts
Gas burners	Number	1	2	3
	Unitary power	17,3 Kw	17,3 Kw	17,3 Kw
	Unitary consumption (according to the gas)			
	G 31 propane 37 mbar	1,35 Kg/h	1,35 Kg/h	1,35 Kg/h
	G 20 GNH 20 mbar	1,80 Kg/h	1,80 Kg/h	1,80 Kg/h
Lighting	Number of lamps	2	2	2
	Unitary voltage / power	230 V / 200 W	230 V / 200 W	230 V / 200 W
Light switches	Number	1	1	1
	voltage / current	230 V / 10A	230 V / 10A	230 V / 10A
Motor switches	Number	1	2	4
	voltage / current	230 V / 10A	230 V / 10A	230 V / 10A
Power indicator light	Number	1	1	1
	Unitary voltage / power	230 V / 1 W	230 V / 1 W	230 V / 1 W
Power cable	Cross-section	3 x 2,5²	3 x 2,5²	3 x 2,5²
	Plug: 1 Live + Neutral +Earth	yes	Yes	yes
Capacity				
Capacity in number of chickens (depending on size)		18/21	30/35	48/56
Total consumption (according to the gas used)				
G 31	Propane 37 mbar	1,35 Kg/h	2,70 Kg/h	4,05 Kg/h
G 20	GNH 20 mbar	1,8 m³	3,6 m³	5,4m³
Nominal heat output		17,3 KW	34,6 KW	51,9 KW
Total electricity consumption with lighting		490 watts	550 watts	640 watts

Burner power and energy consumption table

N° of burners lit	Nominal power deficit In KW out of LHV ([1]) (15°C, 1013 mbar)	In G31 37 mbar ([2]) (propane)	In G20 20 mbar GNH
Unitary	17 kW	1,35 kg/h	1,80 m³/h
2	34 kW	2,70 kg/h	3,60 m³/h
3	51 kW	4,05 kg/h	5,40 m³/h

IMPORTANT: If you change the gas supply, you must replace the old calibration label with that provided in the gas change pack.

Gas usage pressure, according to the country

Country	France	
Category	II 2E + EP	
Gas	G20	G31
Pressure (mbar)	20	37

Unitary burner power at the various burner settings

GAS			Ø Injector bore hole	Setting 1 *(maximum)*	Setting 2 *(Low)*
G31	Propane	37mbar	Ø 2,10 mm	17 kW	8,2 kW
G20	GNH	20mbar	Ø 3,20 mm	17 kW	7,3 kW

9 INSTALLATION

9.1 General instructions

These rotisserie ovens must be installed (in terms of position and connections) by authorised personnel only, who are in possession of the required technical and professional skills to install this equipment according to the standards in force in the country in which the equipment is to be used.

IMPORTANT: Gas installation and modification operations must only be conducted by qualified "Gas" personnel.

[3] *LHV: Lower Heating Value*
[4] *Burner usage pressure*

Any components which are protected by the manufacturer or their representative must not be handled by the installer or user.
If changing the type of gas used, you must refer to pages 34 and 35 of this manual, to the paragraph entitled "*Changing the injector units*".
The rotisserie oven must be installed according to the regulations and standards in effect in the country of use. The new air flow required to provide air for combustion is 2m^3/hour per kW of heat generated.

9.2 Installation

Unpack the rotisserie oven, the spits and the accessories.
Install the rotisserie oven at a safe distance from any combustible material (wood, plastic, etc.). In the event that they cannot be removed, they must be protected by insulation.

Important: Leave an air gap of at least 100mm behind and to the sides of the rotisserie oven to ensure sufficient ventilation and protection for nearby equipment and walls. **Your oven must be at least one metre away from any combustible material.**

9.3 Electrical connection

The connection must be made using a 230V/50Hz single-phase plug with an earth connection, and protected by a 10A fuse. Check that there are no errors in the connection (inversion of earth and neutral, for example).
Refer to the current electrical standards applicable in the country of use.

Check that the available voltage matches the characteristics listed on the information panel at the bottom of the left side of the oven.

Important: The manufacturer may not be held responsible for any accidents following an absent or faulty earth connection, or any other inappropriate installation.

9.4 Steam venting

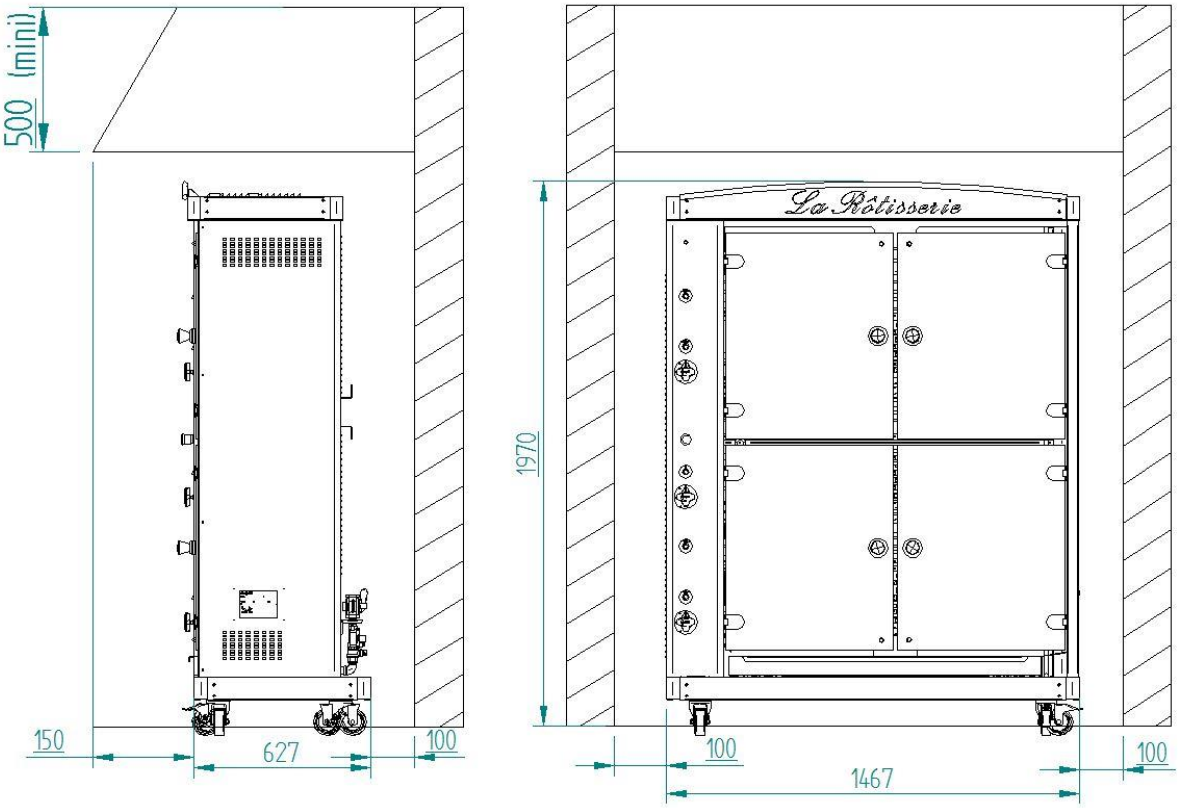
In the event that you are using your rotisserie oven indoors, it must be installed under an extractor hood which corresponds to the minimum characteristics below *(use the standardised dimensions one level up)*.

IMPORTANT: A smoke extraction system with a roof ventilator is mandatory for all equipment in excess of 20kW.

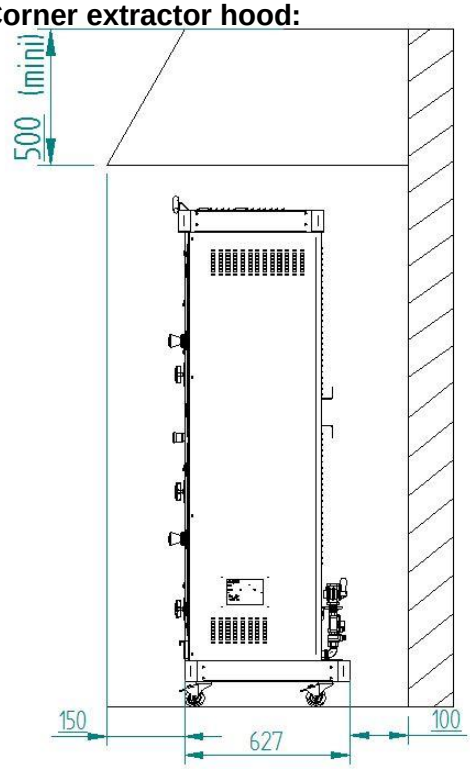
The DOREGRILL Company may provide, upon request and as an optional extra, an extractor fan which is suitable for your needs.
The hood, which must be fitted with a removable grease filter, must be connected to the outside using a rigid duct system with an internal diameter of 250mm, fitted with an adequate motorised extractor fan unit (from 1,500 to 2,300m^3/h, depending on the configuration).

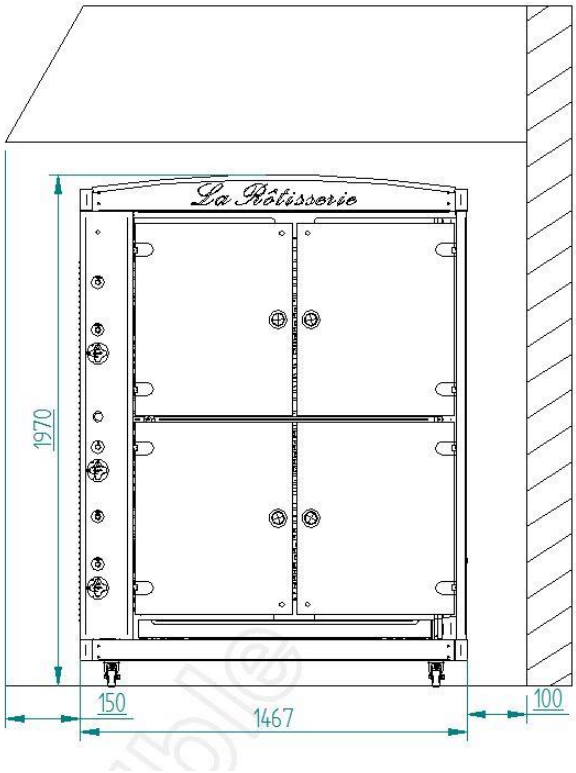
The duct may be either vertical or horizontal, and must open out onto, respectively, a roof or a wall. It must have a backpressure damper. We recommend that the outlet connection be as direct as possible.

Rotisserie in an alcove:

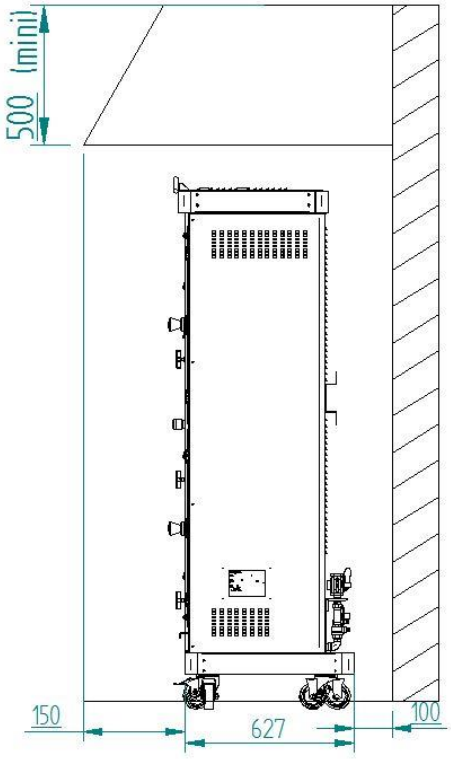


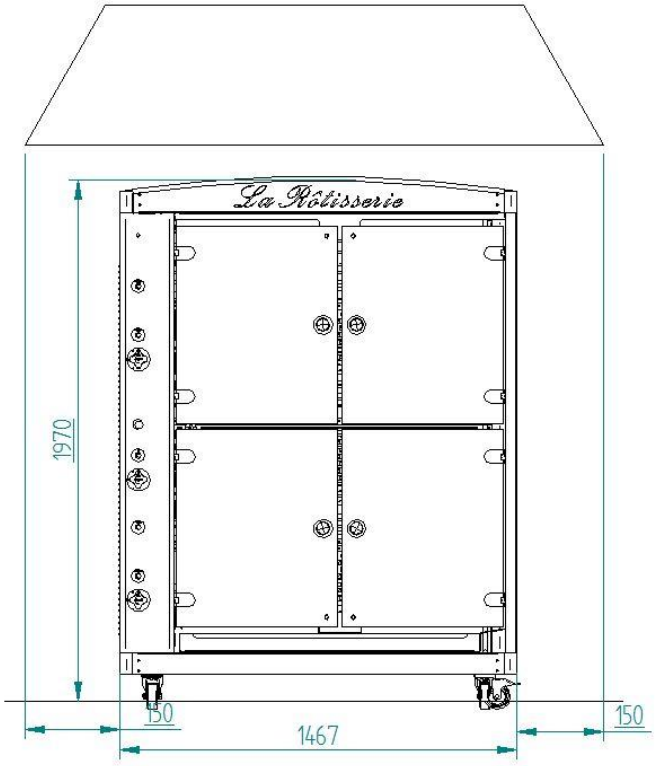
Corner extractor hood:



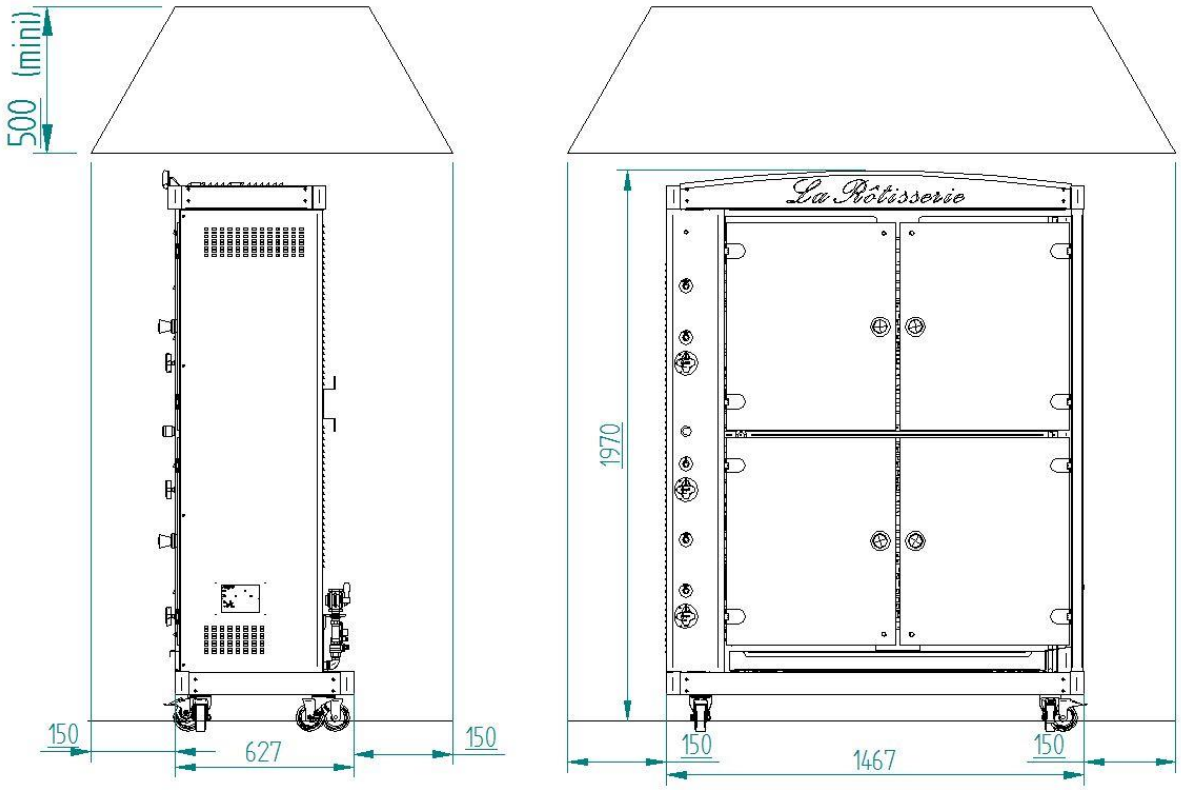


Wall-mounted extractor hood:





Suspended extractor hood:



9.5 Static or mobile connection, natural gas or propane

IMPORTANT: The rotisserie oven is pre-set in the factory for use with a specific type of gas. If you wish to use a different type of gas than that originally intended, the injector unit for each of the burners must be replaced in order to adapt the oven to this new type of gas.
See "User information – Chapter 10 – Maintenance p. 34 and 35

9.5.1 General instructions

IMPORTANT: It is vital that the gas supply tube or hose complies with the current regulations in the country in which the oven is installed. It must be regularly examined, and replaced if necessary. If it is damaged, it must not be used.

Check that both ends of the flexible gas feed pipe (max 1.50m) are compatible with the rotisserie oven' connectors and the gas supply tap (*you may require an adaptor*).

To ensure that the pipe is correctly assembled:

- You must install it between 90° elbow joints *(see fig. 1)*

- If it has threading but no full seal: check whether the joints are there, and their condition (*you must change the joints every time you dismantle it. Only use joints which are covered by the NF D 36-123 standard).*
- If it has threading and a full seal: perfect the seal by inserting a joint material which is compatible with the gas used.
- Adhere to the minimum curve radius (*see table fig. 3*).
- Avoid excessive bending, vibrating and twisting, ensuring that the marking line is correctly positioned (*see fig. 2*).

In order to minimise pressure losses, ensure that the connection between the oven and the gas source is as short as possible. The diameter of the feed pipe will be determined by the route taken (length, number of bends, etc.) and the power of the oven (*see table 3*).

Once the oven is connected, ensure that the pipeline:
- is neither pulled, twisted, folded or snarled,
- will not come into contact with any sharp objects, sharp edges or mobile pieces of equipment which could crush it,
- can easily be checked across the entire length in order to check its condition,
- is correctly attached at both ends using tightening rings which comply with the current regulations in the country of installation.

In order to check the gas pressure being fed into the rotisserie oven, connect a static pressure water manometer to the pressure plug located near the gas intake tap on the oven. When all of the burners are lit, the pressure should be equal to that listed on the information panel for the gas used.

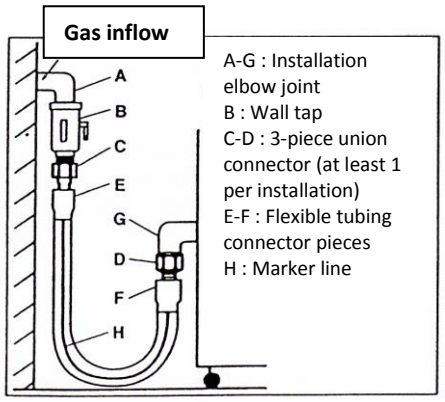


Figure 01

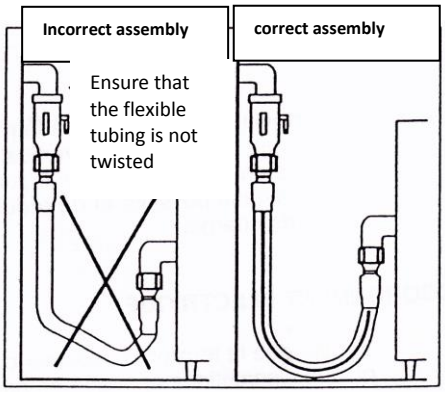


Figure 02

9.5.2 Installation of a static rotisserie oven

In order to permanently connect the rotisserie oven to a gas pipe, use a flexible metal pipe which has been approved for use with gas and propane, such as TUBOGAZ(3) or similar, and is covered by the NF D 36-123 standard (*see fig. 01*)

NATURAL GAS – Values expressed as kW/LHV under 20mbar

Length [3]	Diameter 1/2" R[4] = 90 mm		Diameter 3/4" R = 110 mm		Diameter 1" R = 130 mm	
	without PUSHGAZ	with PUSHGAZ	without PUSHGAZ	with PUSHGAZ	without PUSHGAZ	with PUSHGAZ
0,50 m	25,3	21,5	93,6	80,6	186,0	129,0
0,75 m	21,6	19,0	81,7	69,4	161,0	120,0
1,00 m	19,4	17,5	76,8	67,9	145,0	116,0
1,25 m	18,2	16,5	71,0	64,0	132,0	106,0
1,50 m	17,0	15,7	66,5	60,2	120,0	98,8
2,00 m	14,2	13,2	58,8	54,9	107,0	93,0

PROPANE – Values expressed as kW/LHV under 37mbar

Length	Diameter 1/2" R = 90 mm		Diameter 3/4" R = 110 mm		Diameter 1" R = 130 mm	
	without PUSHGAZ	with PUSHGAZ	without PUSHGAZ		without PUSHGAZ	with PUSHGAZ
0,50 m	34	28,9	126	108	251	174
0,75 m	29,1	25,6	110	93,4	217	162
1,00 m	26,1	23,5	103	91,4	195	157
1,25 m	24,5	22,2	95,5	86,1	177	143
1,50 m	22,9	21,1	89,5	81	162	133
2,00 m	19,1	17,8	79,1	73,9	144	125

Table 03

These powers are given for the following conditions:
(Temperature = 15° C / Atmospheric pressure = 1013 mbar / Air = dry)

9.5.3 Installation of a mobile rotisserie oven

In order to connect the rotisserie oven to a gas pipe, use a flexible metal pipe which has been approved for use with gas and propane, such as TUBOGAZ[5] or similar, and is covered by the NF D 36-123 standard. It must be fitted with an automatic, twin-nozzle quick-connect automatic connection.

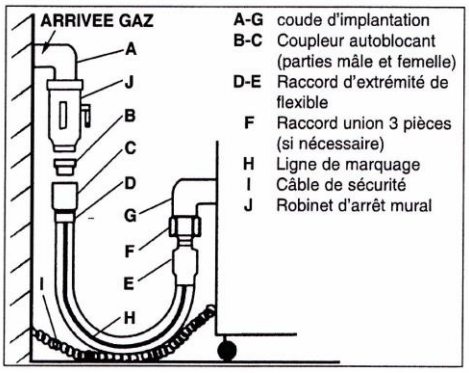


Figure 04

This PUSHGAZ-type quick-connect connector (or similar) must comply with the NF D 36-124 standard and be installed at the gas feed source, so the flexible remains permanently attached to the oven.

In this configuration, for optimum safety and in order to prevent any damage to the installation due to ill-timed movements, you must install a safety cable at the base of your oven (*see fig 04*). This cable

6 Indicated length, not including quick-connect connector

7 R = Pipe curve radius

must have a length of at least 250mm less than the flexible tubing/connector assembly, and connect an anchor point in the wall to an anchor point on the oven itself.

9.5.4 Natural gas supply

Whether the rotisserie oven is static or mobile (*see the relevant paragraphs*), you must install a shutter valve between the gas feed tap and the flexible tubing. This will allow you to isolate this device from the rest of the installation.

9.5.5 Propane supply from canisters

Whether the rotisserie oven is static or mobile (*see the relevant paragraphs*), this gas supply system must comply with all current regulations and include two batteries of cylinders (one in service and one in reserve), each with a sufficient number of cylinders to ensure a perfect gas supply to the oven no matter what the storage temperature. There must be no risk of "frosting" the cylinders (*see table 05)*.

Cylinder storage temperature	Average gas flow from a propane cylinder
- 15° C	450 gr/h
- 5° C	600 gr/h
0° C	700 gr/h
5° C	800 gr/h
10° C	1000 gr/h

Table 05

These cylinder batteries must be stored according to the terms of the storage regulations (*see fig 06*), in particular article 6.11 of the DTU 61.1 which stipulates that:

- Propane cylinders containing more than 6.5 litres must be placed outside of any residential buildings and placed in a stable, horizontal location which must not be embedded for more than 75% of its perimeter in the ground around it,
- Wherever they are placed, the cylinders must be located at least one metre from any building doors or windows at the same level or below, as well as any drain outlets not protected by a sump.
- When it is not possible to respect this distance, a low wall at least 0.5m high must be built between the cylinders and the doors and windows to be protected. It must be at least 0.20m higher than the connection line or the input connectors on the inverter coupler.
- The wall must be made from rot-proof material and be both shock-resistant and non-flammable (class M1).
- If this location is in the open air, the taps and other accessories at the cylinder station must be protected from impacts and bad weather by a hood or awning.

The DOREGRILL Company may provide, as an optional extra, the full propane gas supply kit (loops, T-loops, inverter-pressure regulator, pressure regulator and flexible tubing).

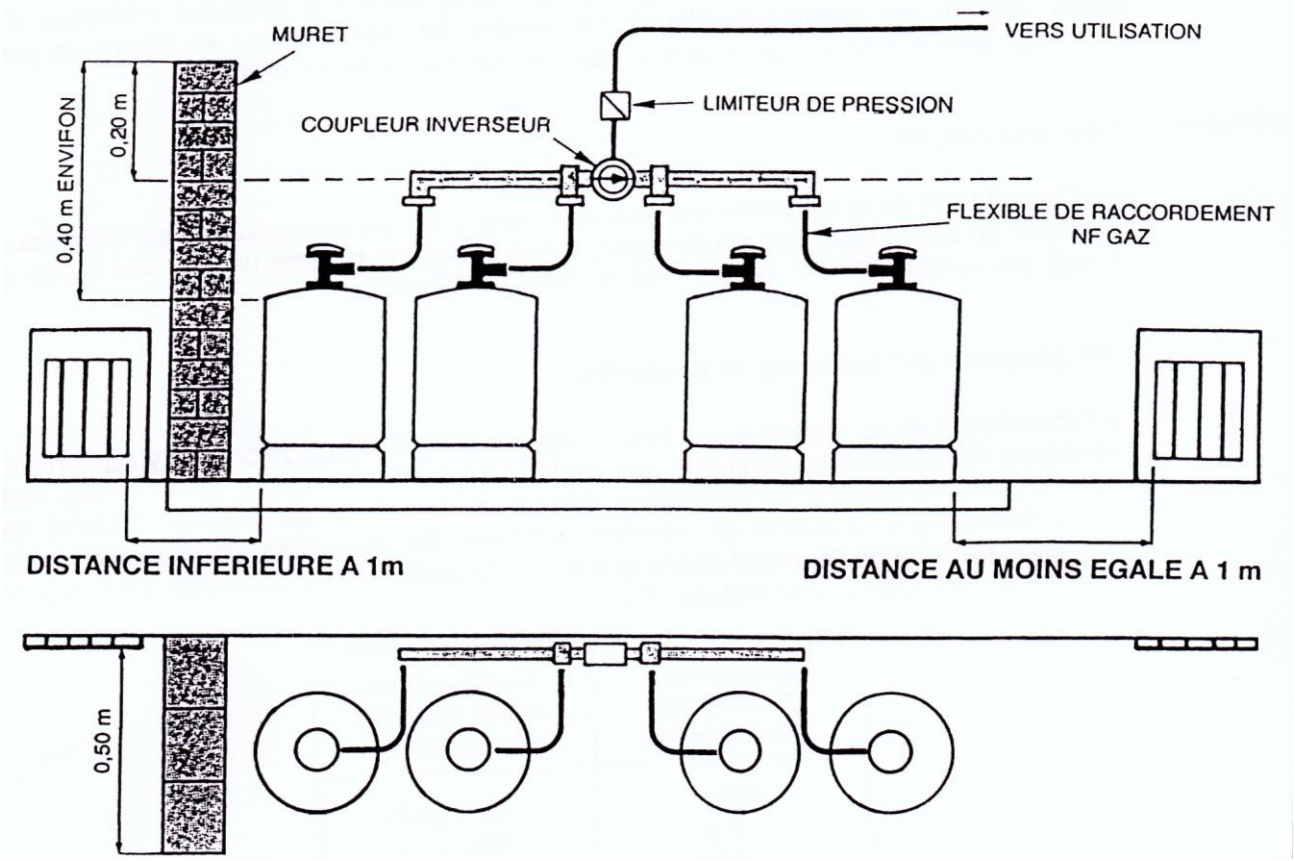


Figure 06

MAINTENANCE

10 MAINTENANCE / CUSTOMER SERVICE

Any interventions on your oven must be performed by a qualified professional.

10.1 Problem localisation

The aim of this part is to list the main problems that the user may confront, give the possible causes and provide the resources to solve them without needing outside help.

DEFECTS OBSERVED	POSSIBLE CAUSES	SOLUTIONS
Electrical circuit		
The power light is off	-No electricity supply - Defective light	-Insert the plug into the socket. Reset the circuit breaker and change the oven's protective fuse. If the problem persists, contact your installer. -Change the bulb
One ambient lamp is not working	-Defective bulb -Defective electrical connection -Defective switch	- Change the bulb - Call the installer - Call the installer
All of the ambient lamps are off	-Defective electrical connection -Defective switch	- Call the installer - Call the installer
One spit is not turning	-Defective motor -Defective switch	Call the installer
Several or all of the spits are not turning	-Defective switch -Defective electrical connection	Call the installer
The spits are not turning and the ambient lamps are off	-Defective electrical connection	- Call the installer

DEFECTS OBSERVED	POSSIBLE CAUSES	SOLUTIONS
Gas circuit		
None of the burners come on	- The shutter valve at the gas feed tap is closed - The gas tap on the oven is closed - The connector piece on the metal pipe is not connected to the gas feed tap (*mobile installation*) - The propane canisters are empty (*cylinder gas supply*) - The coupler-inverter is not working (*cylinder gas supply*)	-Open the shutter valve. -Open the gas tap behind the oven -Connect the connector piece to the gas feed tap -Change the propane bottles - Call the installer
One burner is not burning evenly	-There is a foreign body obstructing the part running from the control tap to the burner - The control tap is defective - The injector unit is defective - The burner is defective	Call the installer
The burners are not burning evenly	- The gas feed pressure is too low - The propane cylinders are frosted (*cylinder gas supply*) - A foreign body is blocking the feed line	- Check the openings on the various gas feed taps. If necessary, call the installer. - Reduce the number of burners in service. Have the number of cylinders increased by a qualified "Gas" installer. - Call the installer
One burner will not come on	- The control tap is defective - The thermocouple is defective - The burner is defective	Call the installer

10.2 Specific repairs

10.2.1 Replacing a bulb

This operation can be performed by the user.

> **Warning:** Before changing a hot lamp, wait a few minutes for it to cool down in order to avoid burning yourself.

Disconnect the rotisserie oven's power supply.
With a number 7 Allen key, loosen and remove the wingnut and the washer.
Remove the glass screen. Remove the defective bulb and replace it with an identical, 300W max bulb. Never hold it in your bare hands; always use a paper or a clean cloth. The slightest fingerprint or trace of oil may render the bulb unusable.

If the bulb seems unclean, clean it with alcohol and a soft cloth.
Replace the glass screen and the joint. Re-screw and moderately tighten the screw, taking care not to break the glass panel.

10.2.2 Opening the technical cabinet

The technical cabinet is located on the left of the rotisserie oven, behind the control panel. It enables you to access and repair the various components of the electrical and gas circuits.

This operation must only be performed by qualified personnel.

Before opening the housing, disconnect the power supply and shut off the gas tap located behind the oven. Using a screwdriver, undo the screw holding the outer panel in place then remove it. Once the intervention is finished, it is important to replace this panel and reinsert the screw.

10.2.3 Changing the direction of a spit drive motor

To enable large birds to be cooked without any risk of the mechanism seizing up, the spit motors on the even-numbered levels rotate in one direction and those on the odd-numbered levels rotate in the other.

This operation must only be performed by qualified personnel.

Check the rotation direction of the motor concerned. Then, after shutting off the electricity and gas, open the technical cabinet.

Using a screwdriver, unscrew the two screws holding the rotor bracket in place and remove it. Release the coil unit from the top of the rotor, turn it around and then reposition it on the rotor.

Replace the bracket and the screws, ensure that the coil turns without rubbing against anything and tighten the screws.

Reconnect the motor and check the rotation direction before closing the technical cabinet.

10.2.4 Replacing the injector blocks

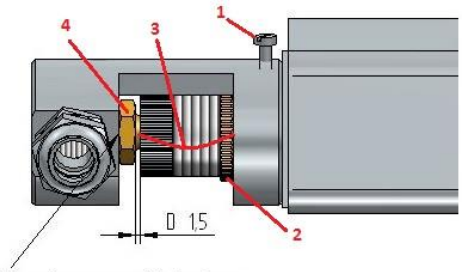
Before attempting any intervention to change the type of gas used on this oven, it is essential to contact the manufacturer (DOREGRILL). Additionally, any operation required to replace a defective injector or change the type of gas used, **must be conducted by a qualified "Gas" repair professional**.

IMPORTANT: In the event that you wish to change the gas input, and in order to fully adhere to the 90/396/CEE European Directive concerning gas equipment, **you must order the kit containing the various components required for the transformation from the Company**. A new information panel corresponding to the new type of gas used will be provided by the manufacturer.

After having secured the gas circuit properly (by closing the various taps) and disconnecting the power supply, open the technical “Gas” cabinet located on the left side of the oven using a screwdriver.

Burner

- Unscrew the Venturi screw (1)
- Loosen the ring (2)
- Push the Venturi towards the inside of the burner (3)
- Unscrew and extract the injector (4)
- After selecting the new injector corresponding to the new type of gas (*see table below*), reassemble it using the above operations (but in reverse).



Emplacement injecteur

D = Gaz naturel 1,5 mm

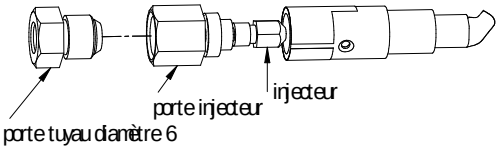
D = Gaz propane 0 mm

Repeat all of these operations on all of the burners.

Gas	Injector	Ø injector bore hole	Ref. in the "Gas change" booklet	"A" setting
GNH (20 mbar*)	G20	Ø 3,20 mm		1,5 mm
Propane (37 mbar*)	G31	Ø 2,10 mm		0 mm

Pilot light

-Unscrew the Ø 6 pipe holder
- Unscrew the injector holder
- Unscrew and extract the injector
- After selecting the new injector corresponding to the new type of gas (*see table below*), reassemble it using the above operations (but in reverse).

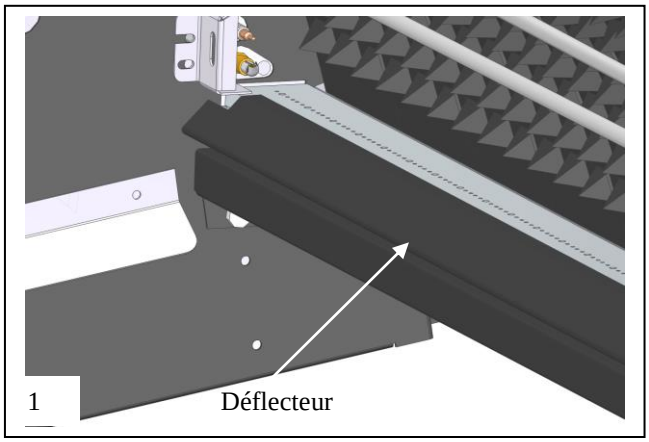


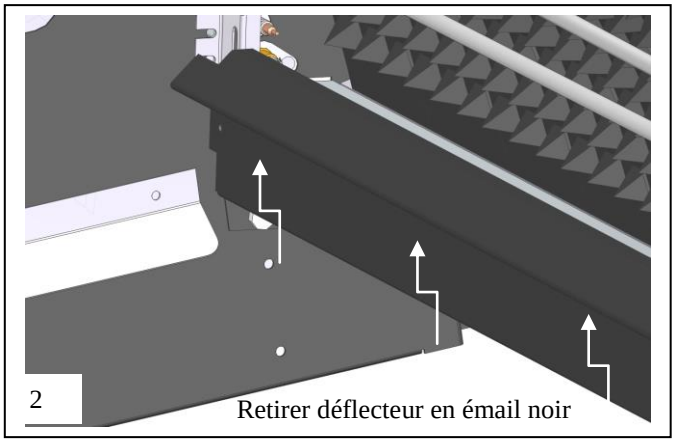
Gas	Injector	Ø injector bore hole
GNH (20 mbar*)	G20	Ø 0,30 mm
Propane (37 mbar*)	G31	Ø 0,20 mm

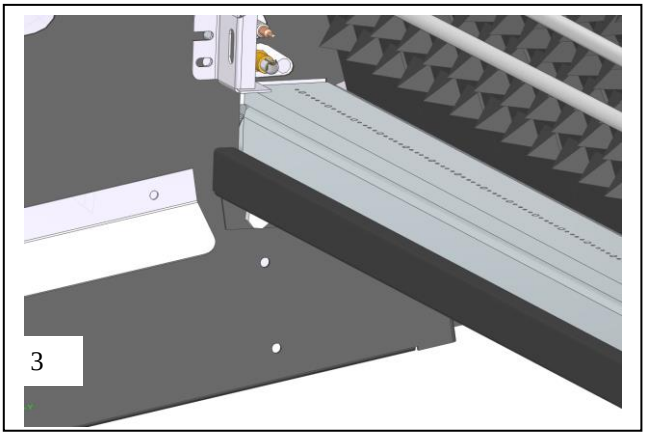
Reconnect the gas circuit and check, using foam, the seal on the entire circuit before closing the technical cabinet.

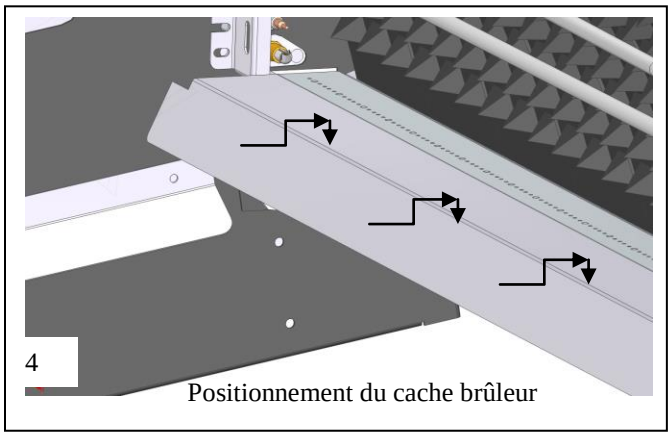
Do not forget to replace the old information panel with the panel provided by the manufacturer with the new injector kit.

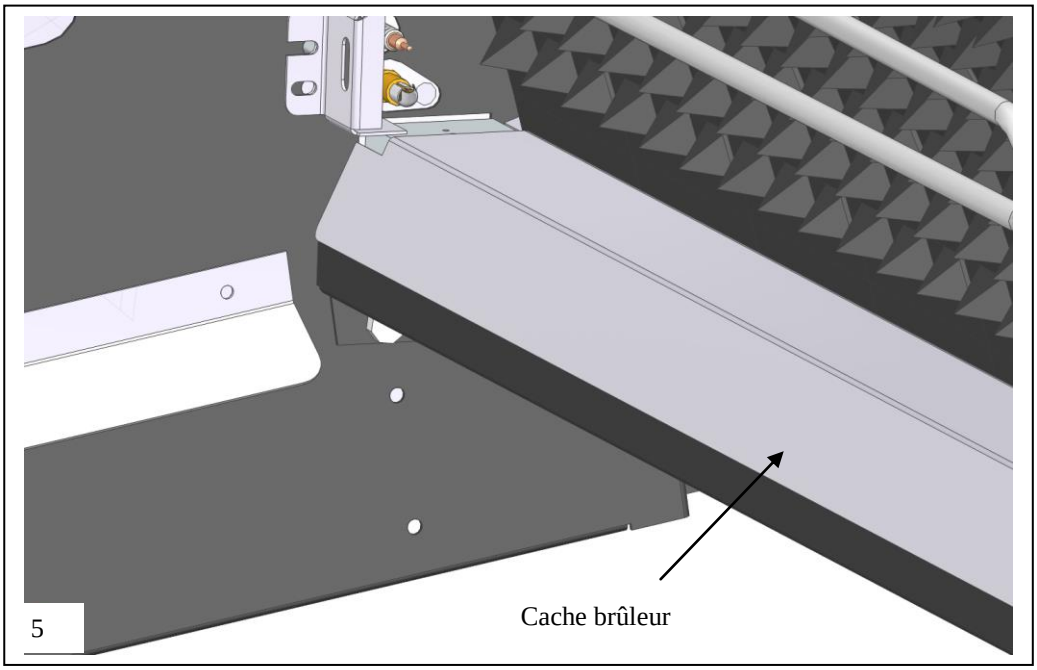
10.2.5 **POSITIONING THE MAGFLAM BURNER PROTECTOR**







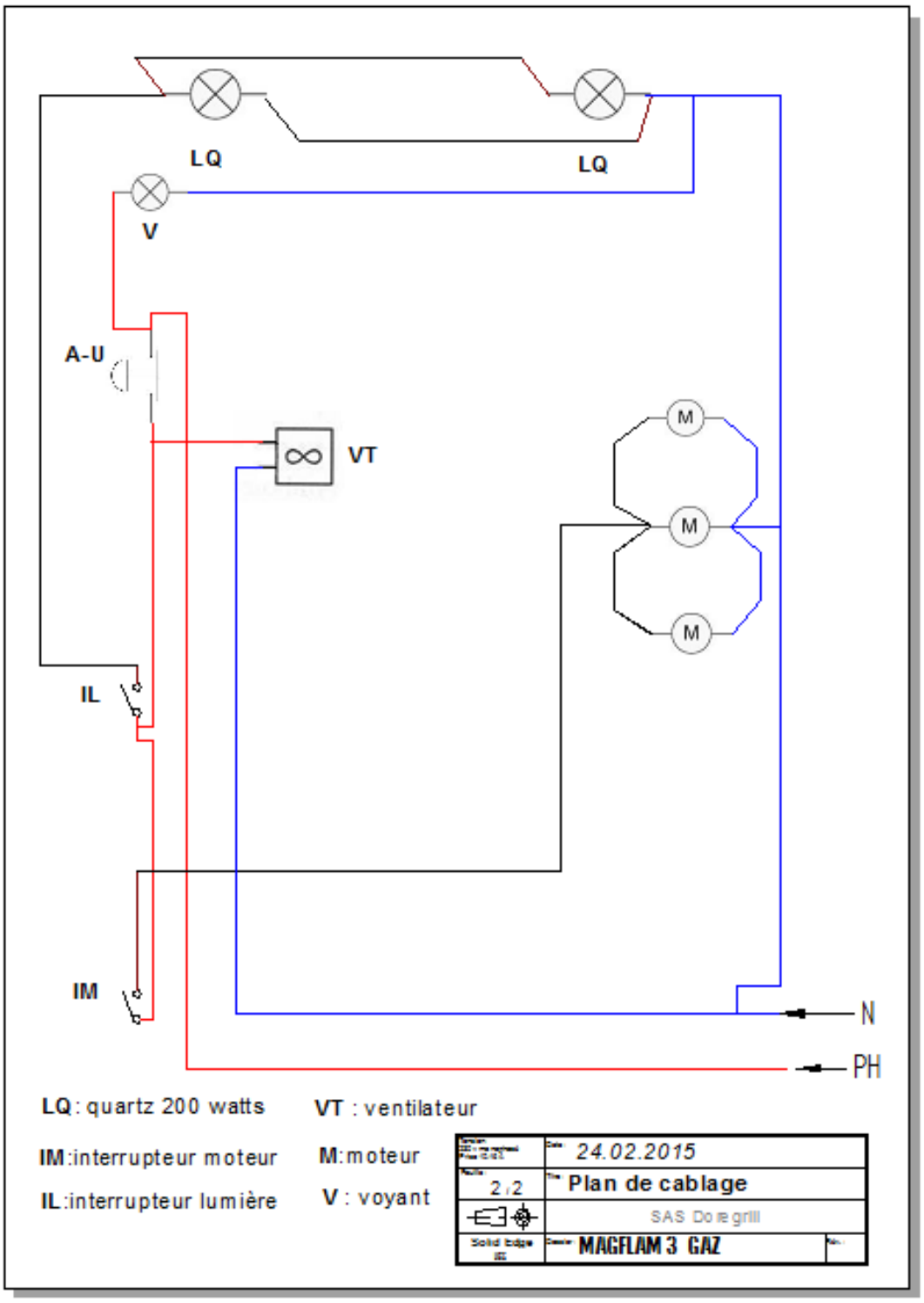




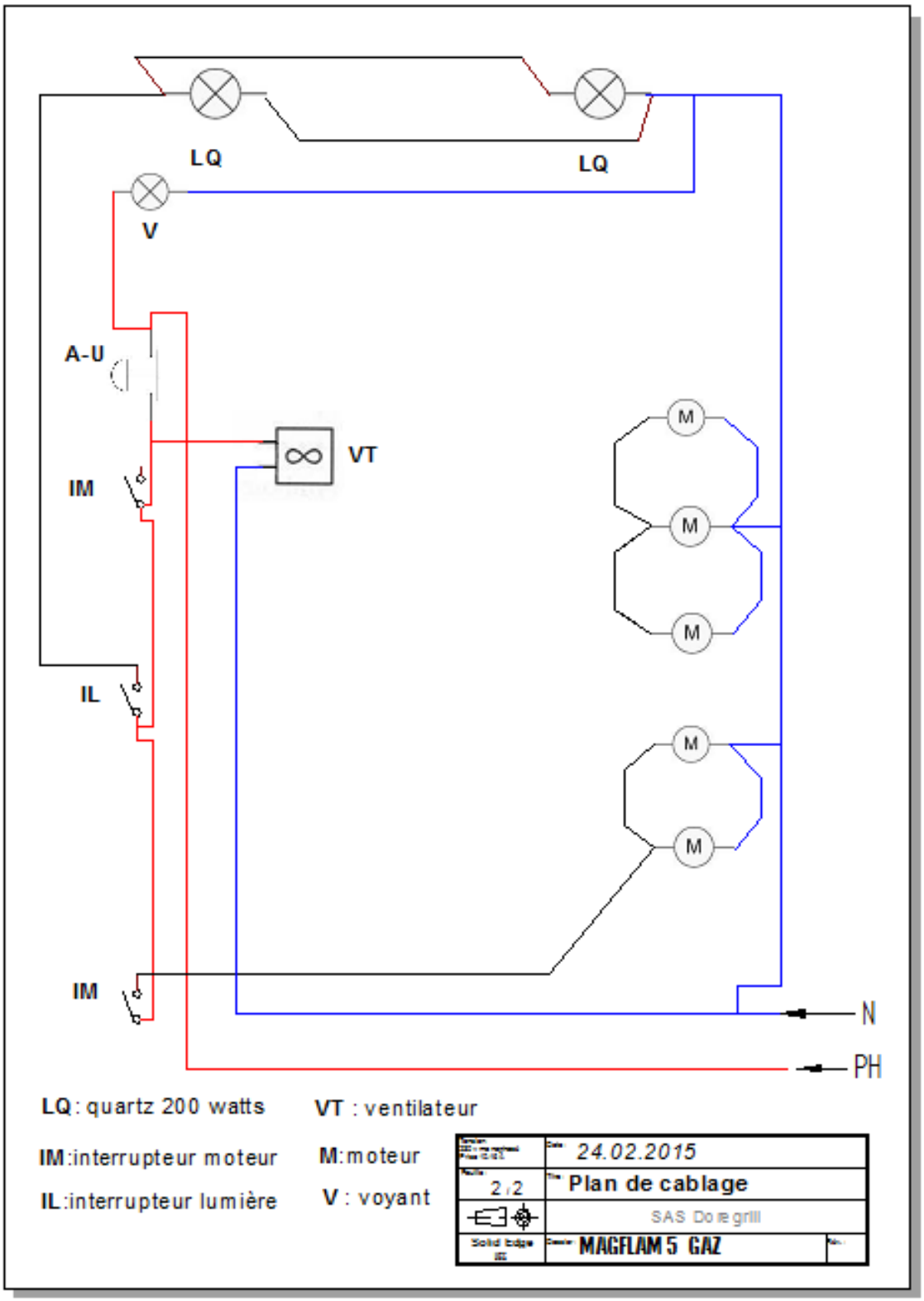
APPENDICES

11 APPENDICES

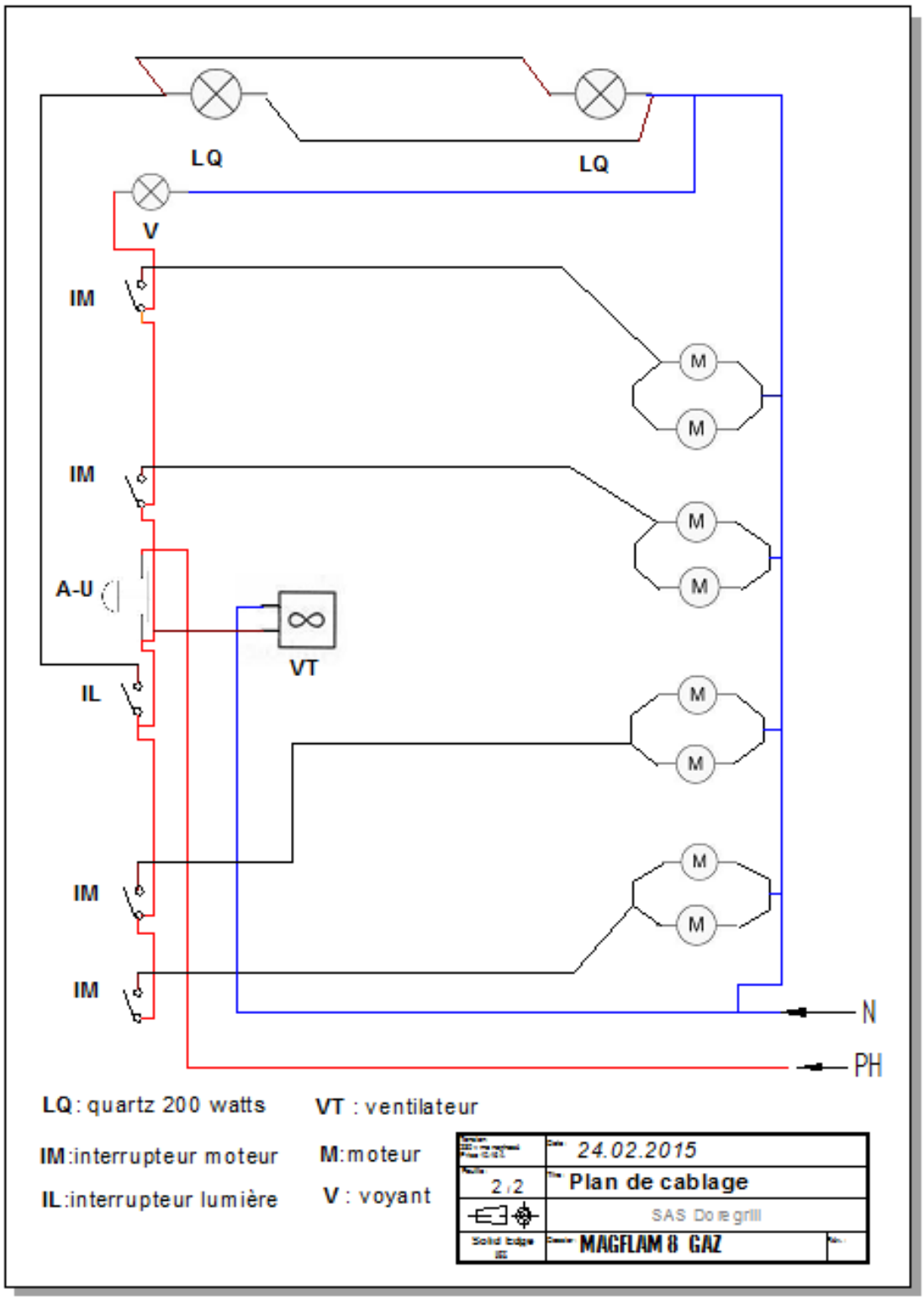
11.1 Electrical plan for MAGFLAM 3



11.2 Electrical plan for MAGFLAM 5



11.3 Electrical plan for MAGFLAM 8



11.4 GAS certification

All of our gas rotisserie ovens have been awarded the CE, CERUG, Gaz De France and AFNOR certifications. They are regularly subjected to unexpected checks by these inspecting organisations.

11.5 The information panel on your oven

The MAGFLAM GAZ rotisserie oven which you have just purchased is prepared for use with the type of gas specified on the information panel below:

Stick the label from the rotisserie oven information panel here