

# Electric fryers

DESCRIPTION	PRO 800	PRO 900
E1FR0708-G	V02701	V02705
E1FR0708-D	V02703	V02707
E2FR0708	V02702	V02706
R-E1FR0708-G	V02704	V02708
R-E1FR0708-D	V02485	V02451
R-E2FR0708	V02450	V02487



## *Installation Manual*



# Electric fryers

## INSTALLATION

### 1.1. General instructions

The installation must be done in a sufficiently ventilated room with mechanical extraction, according to professional standards and in accordance with the relevant rules and standards in the country of installation and with the instructions contained in this manual.

**The user must be supplied with the manual once the machine has been installed.**

### 1.2. Handling – Positioning of the machine

The machine **must** remain on its wooden base during handling, until it has been put in its final position.

Remove packaging and make sure that the machine is in good condition.

In the event of damage, please indicate the reservations on the delivery note, to be confirmed by registered post with acknowledgement of receipt to the carrier within a maximum of 48 hours.

### 1.3. Positioning of the machine

***Special attention must be given to the fire safety regulations applicable at the relevant site (see local regulations)***

The machine **must** be installed underneath an extractor fan.

If this machine must be installed close to a wall, a partition, a piece of furniture, decorative borders, it is recommended that these should be made of a non-flammable material.

If this is not the case, they must be coated with an appropriate material, a good, non-flammable thermal insulator.

In case of any doubts about the materials, we recommend that you install the machine, leaving a space of 10 cm.

Remove all plastic protective covers of the packaging.

Position the machine in its work space

## Warnings

- **Fixed installation:**

Put the feet or adjusting screws on (these come in a separate box)

Adjust level of machine by adjusting height of feet in order to obtain a height of the horizontal work surface.

- **Mobile installation:**

Put the wheels on (these come in a separate box)

The wheels with brakes **must** be locked when the machine is in connecting position and at all times while the machine is in cooking mode.

**IMPORTANT NOTE:**

**FOR ½ MODULES:** In the case of a free-standing installation of the machine, the machine must be fixed to the wall.



# Electric fryers

## Technical operations and repairs:

**Any operation or repair on a machine must be carried out by a qualified installation engineer.**

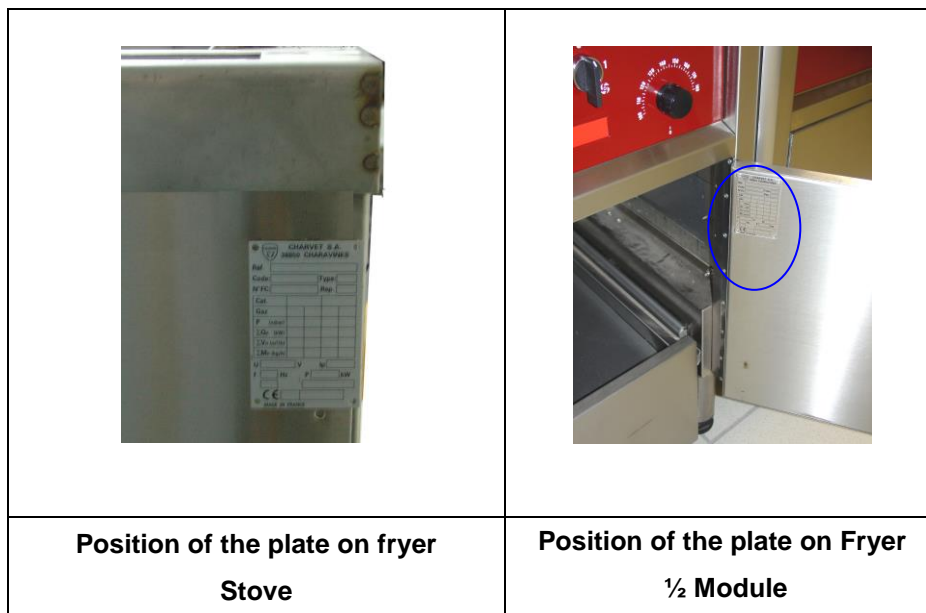
**The machine must be disconnected from the electrical circuit or be technically secured (i.e. disconnected from all supplies etc.), either physically or by means of communication, for the entire length of the operation.**

Once the installation of the machine has been completed, its users must be trained in the appropriate use (see user manual).

Warranty: Details of the warranty are indicated in the sales contract.  
This warranty does not cover any damage as a result of wrong or inappropriate installation, use or poor maintenance.

- **Identification number plate**

Every machine has a number plate. Please copy the data from this plate into the part of this manual for this purpose (see last page). This will make it easier for you to communicate with your client to ensure better service.



# Electric fryers

## ✓ ELECTRICAL PART

### Warnings:



The machine **must** be earthed.  
There is a danger of putting the machine into operation without earthing.  
We assume no liability in the event of accidents as a result of an incorrect or inexistent earthing.



- **Fixed and mobile installation:**

Make sure that the fixed user installation has an all-pole circuit-breaker with an opening distance of the contacts of a minimum of 3 mm.

- **Mobile installation:**

The machine must be connected by a cable with a connecting plug which is appropriate for the power; this plug must be accessible at all times.

- **IMPORTANT NOTE:**

Use approved cable (according to Standard 245 IEC 57 or 245 IEC 66), or any other type of cable with the same characteristics.

#### 4. Checks before making the electrical connections



All the control checks and operations and listed below must be carried out while the machine is out of operation and when it is cold.

- **Check following points:**

Please check the following before live-putting:

- That the voltage of the circuit is compatible with the voltage and the power of the machine (see Section 5),
- the cable is properly fixed,
- the connections of the machine are properly tightened,
- that the section of the cable is compatible with the power of the machine.



# Electric fryers

## 4.1. Electrical connection

- **Electrical connection procedure**



**Never put the machine live when the tub is empty.  
For tests without oil, the water tub must be filled, keeping to the levels indicated on the tub wall.**

Take off front cover to access the electrical connection box (fixing with one screw).  
Pass the cable via the right-hand post of the casing, introduce it into the box through the rear orifice.

TWO  
SCREWS



Connect the power cable to the terminals according to the figures below, in accordance with the indications on the plate fixed on the cabinet.

- Before re-assembling, ensure appropriate electrical insulation of the machine (condition of cables).

Connection terminals E2FR07



**The machine must be earthed.  
There is a danger in putting the machine into operation without earthing.  
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or inexistent earthing.**

# Electric fryers

## 1. TECHNICAL OPERATIONS AND REPAIRS



**Any operation or repair on a machine must be carried out by a qualified installation engineer.**

**The machine must be disconnected from the electrical circuit or be technically secured (i.e. disconnected from all supplies etc.), either physically or by means of communication, for the entire length of the operation.**

### 1.1. Putting into operation

Once the installation of the machine has been completed, its users must be trained in the appropriate use (see user manual).

The documents must be formally handed over to the kitchen manager.

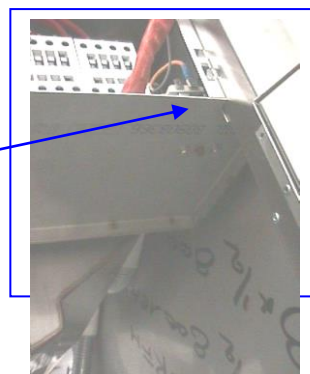
### 1.2. Reset of limit thermostat

The fryers are equipped with a limit thermostat to protect them from over-heating as a result of.

- a defective regulating thermostat,
- a defective power switch,
- wrong or inappropriate filling of tubs.

The reset is done by pressing the red push-button of the safety thermostat which can be accessed when the door of the compartment has been opened. (There are two reset buttons on the right, next to the door, and on the left, on the other side).

Two reset buttons of the temperature limiter.



**Any triggering of the safety thermostat must be analysed before reset.**

## 5. Adjusting the machine to different network voltages

### Table of adjustments

Transformation voltage	⇒	1~230V+T	3~230V+T	3~400V+T	3~400V+N+T
Voltages of the entions de machines delivered					
<b>Electr. Fryer</b> 3~400V+T	⇩	C	A	X	A
				X	

A → Coupling possible B → Contact us C → Coupling not possible D → Voltage not available



# Electric fryers

## 5.1. Wiring diagrams:

**Table: Electrical Fryer (25L)**

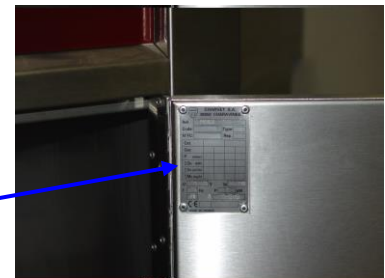
<i>The different machines</i> ⇒	$\frac{1}{2}$ EFR0708	$\frac{1}{2}$ R-E0708
<i>The different electr. configurations</i> ⇩		
<b>Standard fryer without options</b>		
Voltage	3~400V+ T	3~400V+ T
Wiring diagram	SE074/00	SE074/00

1 → Option possible 2 → Option not available 3 → please contact us

## 1.3. Identifying the machines

Every machine has an identification number plate.  
Please copy the data from this plate into the part of this manual for this purpose. This will make it easier for you to communicate with your client to ensure better service.

Identification number plate



### **WARRANTY:**

*Details of the warranty are contained in the sales contract.*

*This warranty does not cover any damage as a result of wrong or inappropriate installation, use or poor maintenance.*



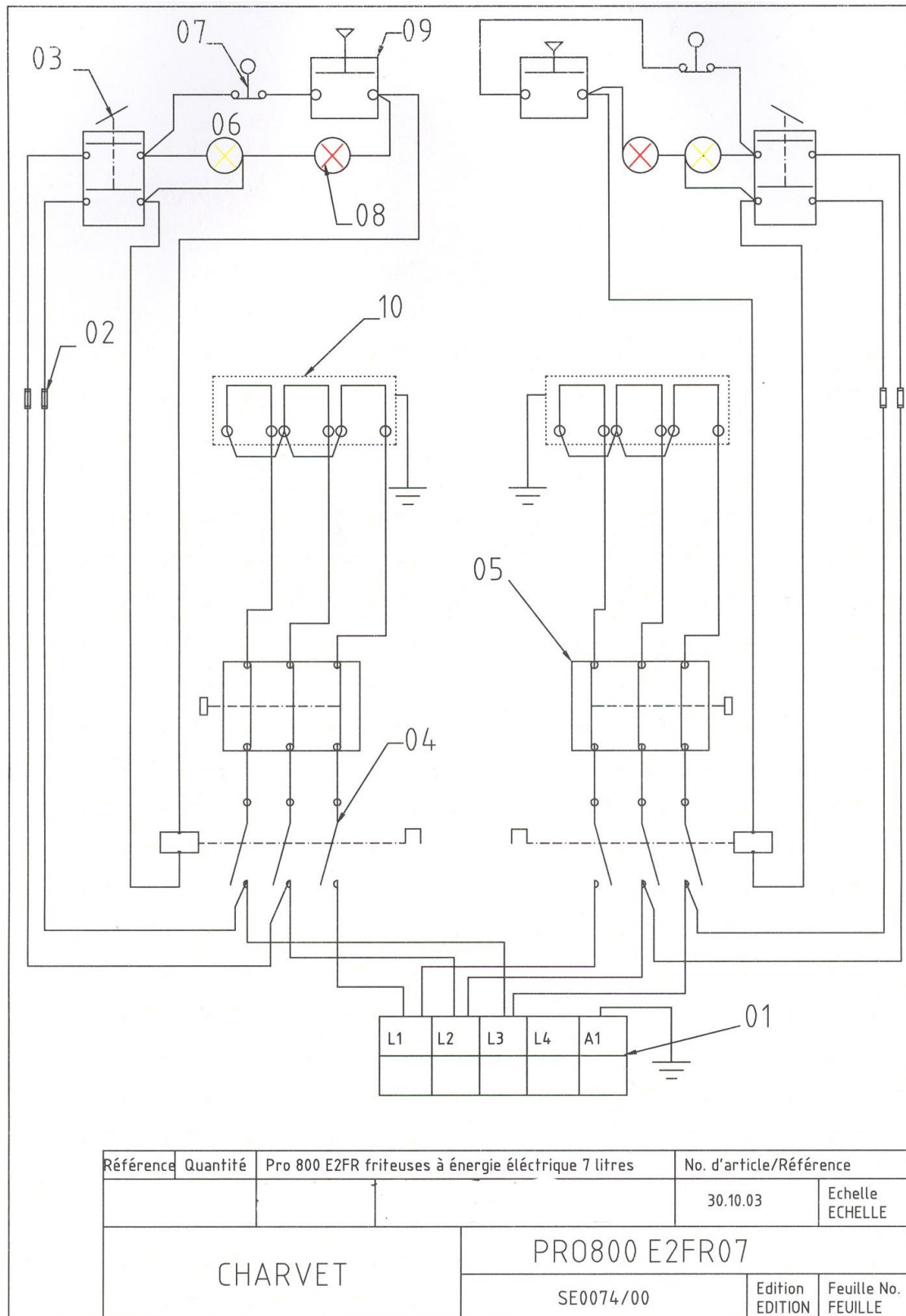
# Electric fryers

## 2. LIST OF EMERGENCY PARTS

Designation	Code	Photograph	Designation	Code	Photograph
Resistance 8 kW for E2FR 7L	08034A		Yellow indicator 400 V	505925	
Safety thermostat (with reset function)	05996A		Fuse 5 mm x 20 mm 5 A	03413A	
Change-over switch	02104A		Regulating thermostat	01996A	
<u>Automatic raising option</u> Micro-limit switch	506116		Coil contactor 400 V	00080A	
Electronic regulation set	09024A		Potentiomètre :	09025A	
Manette :	501146		Red indicator 400 V	505924	



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## NOMENCLATURE: E2FR07 (Diagram no. SE0074 / 00)

Number	Reference	Designation	Qty
01	02726A	Viking Terminal P.F 5X20-39086 LG	4
01	03575A	Viking Terminal with 10 mm <sup>2</sup> earthing	1
01	02468A	Viking Terminal, 10 mm <sup>2</sup>	3
02	02726A	Fuse-holder, 5 mm x 20 mm	4
02	03413A	Fuse, 5 mm x 20 mm, 5 A	4
03	02104A	change-over switch with lever (	2
04	00080A	Contacteur (400 V)	2
05	05996A	Tri-polar temperature limiter	2
06	505925	Yellow indicator 12.2 pace 75 LM1 400 VR	2
06/08	02142A	Bulb 400 V	4
07	506116	Micro-limit switch	2
08	505924	Red indicator 12.2 pace 75 LM1 400 VR	2
09	01996A	Fryer thermostat (single-pole)	2
10	08034A	8 kW 400 V Resistance	2



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## *User Manual*



# Electric fryers

## INTRODUCTION

- A) Our machines are destined for industrial use and must be operated by qualified personnel.
- B) The machines must be installed in a room with adequate ventilation, underneath an extractor fan, in accordance with the relevant standards and regulations in the country of installation.
- c) The machine may be positioned next to others or placed against non-flammable partitions. However, under no circumstances must it be placed at less than 10 cm from any flammable object.
- D) Any changes with respect to the materials in place or any new installation must be carried out by a qualified technician. .
- E) This manual is a contractual document to be handed over to the user on completion of the installation.

*WARRANTY: The warranty is indicated in the sales contract. For any warranty operation, please contact an approved reseller. This warranty does not cover any damage as a result of inadequate or wrong installation or use, or poor maintenance.*

### Dimensions:

#### Extension:

Length: 425 mm.  
Depth: 800 mm.  
Height: 900 mm.

#### Stove:

Length: 425 mm.  
Depth: 800 mm.  
Height: 320 / 380 mm.

### Base: (except stoves)

Compartment with fixed stainless steel (18-10) base.  
Pivoting door and counter-door made of 18-10 stainless steel with 18-10 stainless-steel handle and magnetic locking.

### Construction:

Casing carrying mono-block, made of stainless steel 18-10, thickness 1 to 3 mm, assembled through electrical welding.



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Stainless steel 18-10 top (frame), thickness of 2 mm with dropped leading edge of 55 mm (upper angle radius of 18 mm) and counter-fold.

Vertical parts of casing (visible faces), made of stainless steel 18-10, thickness of 1 mm, mounted without visible screws.

Control panel made of enamelled steel sheet, serigraphy marking, mounted in retreat of the front cover.

Feet of a height of 200 mm; stainless steel tubes with a diameter of 60.3 mm with adjustable bases enabling height adjustment (+10 / - 20 mm).

## Tub:

Pressed stainless steel tubs with radiated angles; thicknesses: 1 mm and 2 mm for the upper decorative part

Cold zone and swelling zone

Min./max. marking of the oil level

Drain valve in the base or under the machine for stoves. (with the option of an exit in the front cover)

Stainless steel 18-10 lid, thickness 1 mm, (can be lifted and removed).

## 1. FIRST LAUNCH

- a) Before each use, the operator must ensure the entire cleaning of the tubs, using a non-aggressive detergent.
- b) Drain tubs
- c) Make sure that the tubs are well dried before filling in the oil.
- d) Before live-putting the resistances, ensure the right oil level in the fryer tubs:
  - EFR 7/8: between the markings on the basket-holder
  - (max. ●●●, min. ●).

Under the minimum level, there is a danger that the oil bath might get overheated.

Above the maximum level, there is a danger of overflow as a result of swelling when the basket is lowered.



***Before each drain, remember to stop the heating of the resistances.***



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## 2. PUTTING INTO OPERATION

### OPEN LID

- Position switch in position "ON", then the yellow indicator will come on. (sign that the machine is live).
- Select desired temperature by operating the thermostat button (see table on the fryer door), then the red indicator will come on. The machine is warming up.
- When the temperature indicated has been reached, this red indicator will go off. The basket of the fryer may then be plunged.

### TEMPERATURES, WARMING-UP TIMES, COOKING TIMES

PRODUCTS	PRE-HEATING TEMPERATURES	FRYING TEMPERATURES °C	COOKING TIMES (in minutes)
WHITE CHIPS 1st FRYING	5 – 5'30	150° - 170°	3 – 5
GOLDEN FRIES 2nd FRYING	5'30 – 6'30	170° - 190°	2 - 3
CHIPS/ STRAW POTATOES	6'30	190°	2 - 4
FISH	5'30 – 6'30	170° - 190°	2 - 5
MEATS	5'30 – 6'30	170° - 190°	2 - 3
SWEETS/DESSERTS	6'	180°	2 - 5

These are only indicative values which may vary according to the quantity of oil, the load and the temperature of the products placed in the basket(s).

The pre-heating of a bath with a solid block of fat should be done at low thermostat position (60°C) for as long as the block is melting (danger that the material around the resistance might catch fire if the machine is directly heated up in full boiling position!).

### **PRACTICAL ADVICE**

Do not exceed the permitted load for filling the basket:

**The fryer may be used for all types of frying.**



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**NEVER MELT SOLID BLOCKS OF FAT ON THE RESISTANCES**  
(melt it beforehand)



MODELE	LOAD (in kg per basket) Fresh fries	LOAD (in kg per basket) frozen fries	Number of basket(s)
E2FR 7	1.5	1.25	2

## Each compartment of your fryer is equipped with:

- a mechanical timer which will help you to control the length your cooking time and to programme the desired time; when the time is up, a sound signal will tell you when you have to take the basket out.
- with a basket-holder for draining; in cooking position the basket rests on the resistance.
- With a cold zone which enables the decanting of residues, thus avoiding to burn them with the oil bath; hence, the oil needs to be exchanged less frequently.
- With a drain valve on a recovery slide equipped with the filter basket, allowing to drain the tub and to retain the largest residues.

The valve can be accessed when the door of the compartment has been opened.

**During the hot-drain operation, every precaution must be taken by the operator to avoid the risk of burns.**



***The tub walls may be very hot after intense or prolonged use of the machine.***

***The gripping handles of the drain bucket are also very hot if the oil was drained very hot.***

### 3. PUTTING OUT OF OPERATION

Put the switch back on position 'OFF' and the thermostat on position '0'.  
Also drain the tub before cooling down, if necessary, for the cleaning of the tub.

At the end of the day, the electricity supply of the machine must be disconnected.



# Electric fryers

## 4. MAINTENANCE

### 4.1. Cleaning of stainless steel casings:

Wash, using a sponge and water with some soap (or any other *neutral* detergent).  
*Do not use water with bleach and any other acid product, even very diluted.*

For the tops, use a scourer if necessary, making sure that you always rub ***in polishing direction.***

Wipe down with an oily rag after each use.

Finger prints may be removed, using a cloth drenched with some alcohol.

### 4.2. Cleaning of tubs:

**Disconnect machines.  
Make sure the machine is no more live.  
This machine must not be cleaned with high-pressure water jets.**

Turn the fryer off and drain the tub of its contents.

Fill the tubs with water with some *neutral* detergent or a special detergent for fryers.

Gently heat to 60°C.

Switch the machine off again, then drain and rinse the tub.

***For better service, it is recommended to have the machine serviced by a qualified service engineer at regular intervals, according to the intensity of use.***

***Warning: Some parts of the machine are covered by the manufacturer. In the event of a failure or defect, please call a qualified service engineer.***

## 5. IN THE EVENT OF A FAILURE

### AUTOMATIC SAFETY PROCEDURE OF YOUR FRYER

In the event of a failure of the regulating thermostat, a temperature limiter will control the temperature, cut off the electricity supply of the resistances in good time and ensure the safety of your fryer.

Then you will need to notify your installation engineer to get the defective thermostat exchanged.



**The safety thermostat may only be reset by a qualified electrician.**



**Neither the manufacturer nor the installation engineer shall assume any LIABILITY if the operator fails to call for maintenance in the event of these faults.**





# Electric fryers

PLEASE COPY the data from the IDENTIFICATION NUMBER PLATE of your machine into the space below:

 <b>CHARVET S.A.</b> <b>38850 CHARAVINES</b>	
Réf.	<input type="text"/>
Code:	<input type="text"/> Type: <input type="text"/>
N°FC:	<input type="text"/>
N°OF:	<input type="text"/> Rep. <input type="text"/>
Cat.	<input type="text"/>
Gaz	<input type="text"/>
P (mbar)	<input type="text"/>
$\Sigma Q_n$ (kW)	<input type="text"/>
$\Sigma V_n$ (m <sup>3</sup> /h)	<input type="text"/>
$\Sigma M_n$ (kg/h)	<input type="text"/>
U	<input type="text"/> V <input type="text"/> Hz Ip <input type="text"/>
P	<input type="text"/> kW <input type="text"/>
 <input type="text"/> <input type="text"/>	
MADE IN FRANCE	

This information will make it easier for you to communicate with your installation engineer for maintenance and for the delivery of spare parts.

