



Cooking Systems with Oil

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Installations- and user manual VO5M



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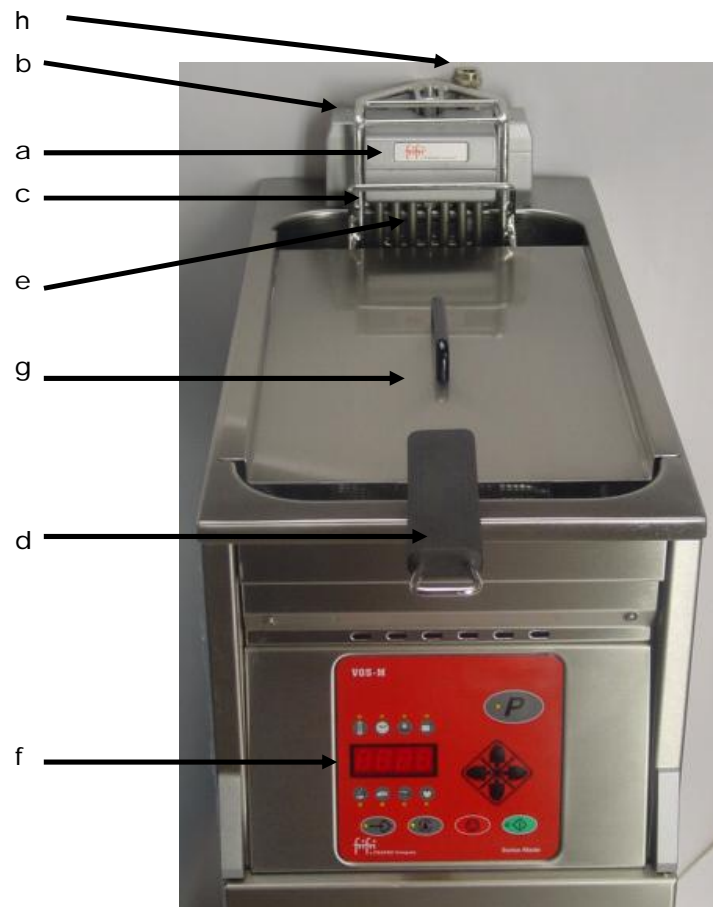
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Description

1. Description

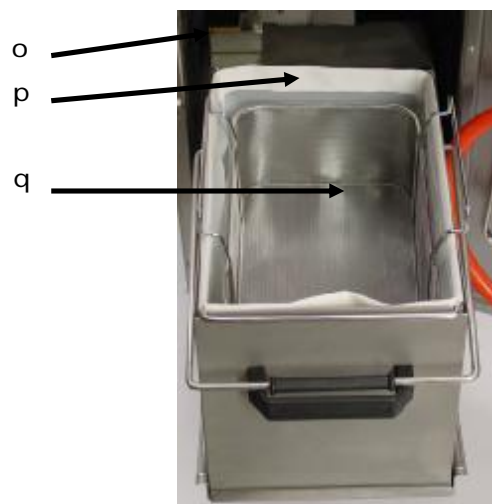
1.1 Construction



- a. Retaining block for heating element
- b. Tilting mechanism of heating element
- c. Frying basket holder
- d. Frying basket
- e. Submerged heater
- f. Control panel
- g. Frying pot cover
- h. Fast coupling for the system of pumping

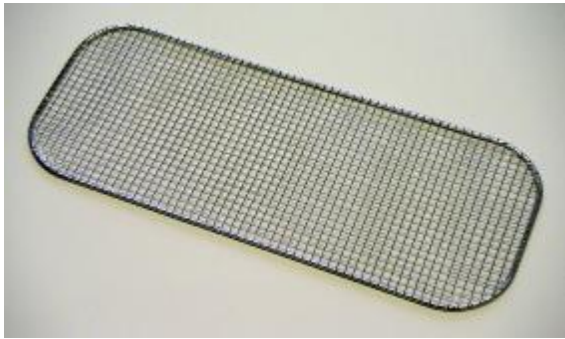


- i. Drain valve handle
- j. Frying oil drain tap
- k. Oil receptacle
- l. Bottom removable
- m. Drain pipe for oil
- n. Tube on optional oil pump system
- o. pump coupling
- p. Fine filter
- q. Coarse filter



1.2 Accessories

Grid



Frying basket holder



Basket



Oil-filtering container with coarse and fine filter



Drain pipe and tube on optional oil pump system



1.3 Mode of functioning

The deep fat fryers V05 made by frifri Aro SA are available in variants (211 - 311 - 411 - 412 & 422).

The range can be equipped with two optional extras, the integrated oil pump and filtration system and/or the automatic basket lift.

The deep fat fryers essentially consist of a frying pot in which a submerged heating element heats the frying oil and keeps it at the required frying temperature.

The frying basket with the product being fried is lowered into the hot frying oil manually or by the optional basket lift.

The size of the frying pot, the power execution of the heating elements, the control panel as well as the optional extras are for an easy daily use of the appliance.

VO5 « M »
Control panel Membrane button to action the following: <ul style="list-style-type: none">. On / Off. Reset safety thermostat. Pumping. Navy pad for the selection and programming of the parameters :<ul style="list-style-type: none">fat melting cycle from 60 up to 90°Ctemperature from 130 up to 190°C frying timeshake time (alarm after 30 seconds) active or inactive
Program : 10 frying programs
Indication by Led While fix or flashing indicate the status of the fryer or a possible failure.
Display : Shows alternatively the selected as well as the actual parameters.
Available options <ul style="list-style-type: none">. Oil pump system. Automatic basket lift

1.4 Technical data

1.4.1 Identification of the appliance

Every deep fryer is provided with a technical identification plate.

Always have this identification plate available when making enquiries to our customer services department.

Example according to type plate

N° art : Article number form the price list

Type : Technology

N° APP : Item code

OF : Order of fabrication

U : Voltage

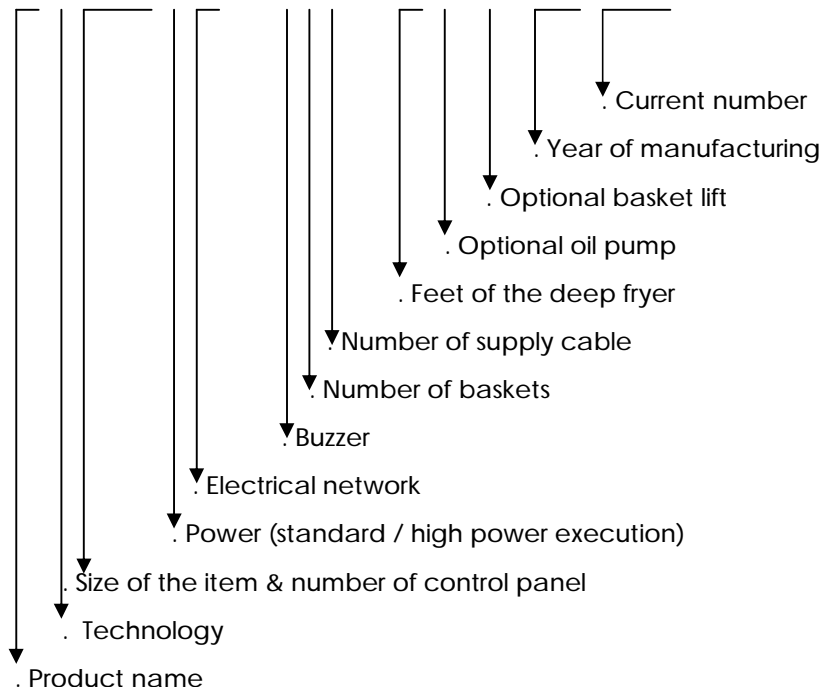
P : Power

Câble : Section and number of conductors of the supply cable

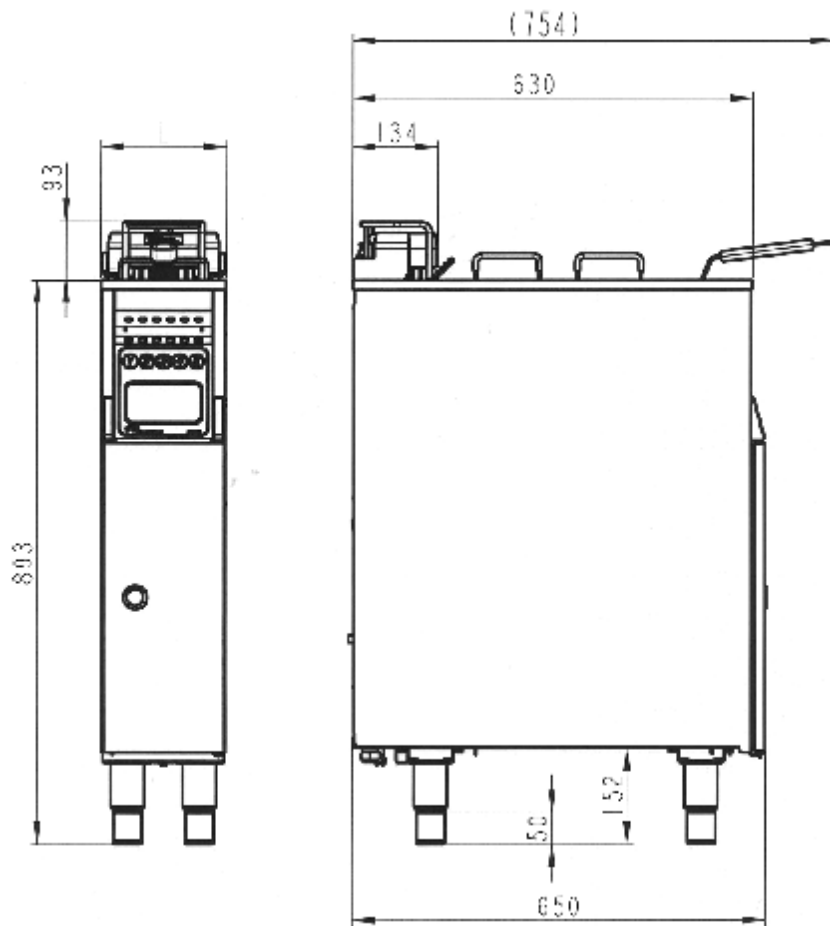
 La FRANKE Company		CH - 2500 La Neuveville TEL. n°: 32 732 45 52 Fax: n°41 32 731 36 43 www.frifri.ch - info@frifri.com	
No. Article: BB42220		 	
Type: ELEGANCE™ M 422			
No. APP: 60M422401-022-0700			
CF: 000000	No. de série: 000000		
P: 7,5 kW U: 3NAC 400V I: 10,8 A F: 50/60 Hz			
CABLE: 3L+N+PE		5x2,5 mm	
SWISS MADE			

1.4.2 Codification of the appliance number:

Example: **60M422 101 - 022 - 0510 - 030001**

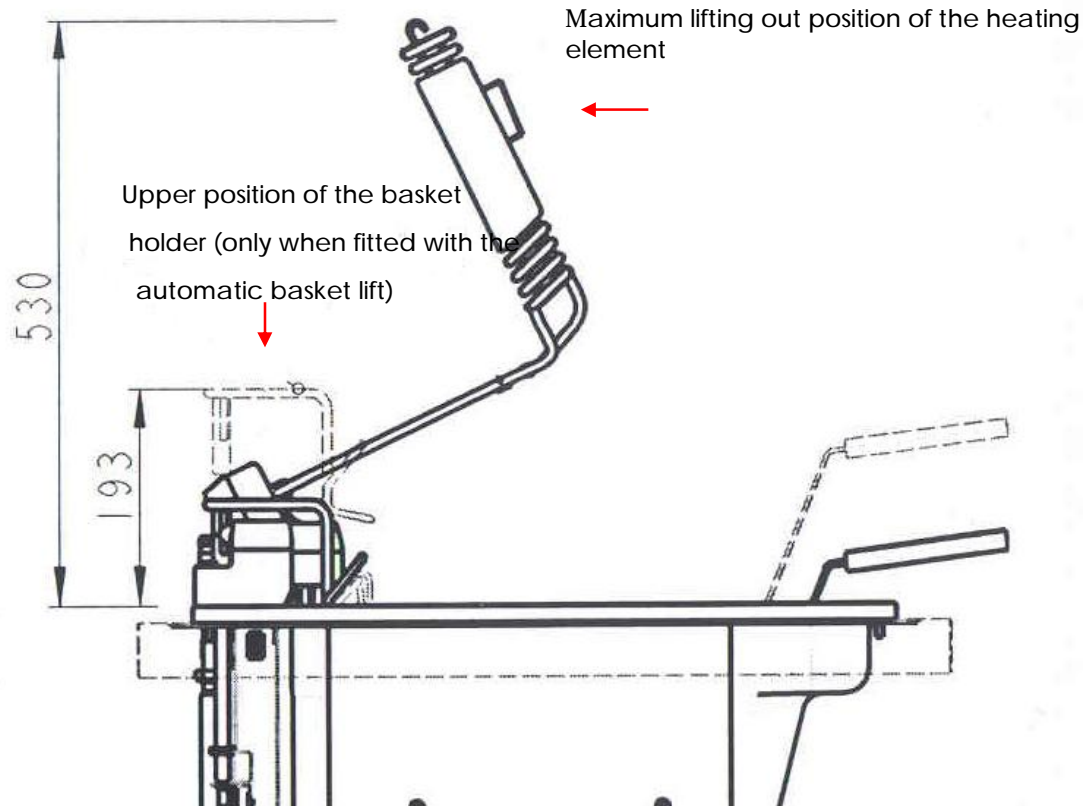


1.4.3 Dimensions



Type	L	L2	Optional oil pump	Optional basket lift
211	197.5	163	1	1
311	297.5	263	1	1
411 – 412	397.5	363	1	1 or 2
422	397.5	363	1 or 2	2

1.4.4 Maximum dimensions above the frying vat



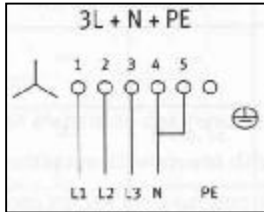
1.4.5 Weights and filling data

Type	211	311	411	422
Net weight (without accessories) (kg)	-	-	-	-
Number of basket	1	1 or 2	1 or 2	2
Filling qty per frying basket (Kg)	1x 0.9	1x 1 or 2x 0.5	1x 1.65 or 2x 0.9	2x 0.9
Frying oil qty.min (l)	7.5	12.5	17	2 x 7.5
Frying oil qty.max (l)	9	14.5	20.5	2 x 9
Frozen chips (output per hour) (Kg)	17 – 22	27 – 32	34 – 44	34 – 44
Pre fried chips (output per hour) (Kg)	20 – 25	30 – 35	40 - 50	40 - 50

1.4.6 Electric system

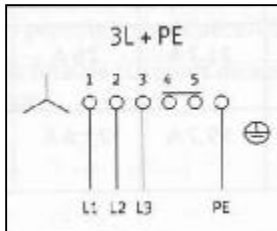
1.4.6.1 Voltages, types of connection and versions

Voltage three-phase 3NAC 400 V – 50/60Hz : 3L + N + PE



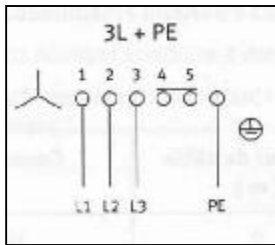
Standard version three phase with neutral and earth

Voltage three-phase 3AC 400 V – 50/60Hz : 3L + PE



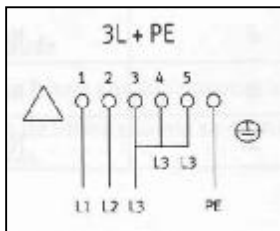
Special version without neutral

Voltage three-phase 3AC 440 V – 50/60Hz : 3L + PE



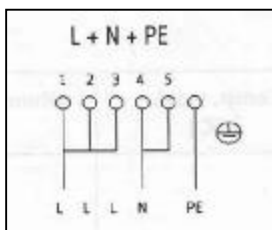
Special version for ships

Voltage three-phase 3AC 230 V – 50/60Hz : 3L + PE



Special version three-phase without neutral

Voltage single-phase AC 230V – 50/60Hz : L + N + PE



Special single-phase version

1.4.6.2 Mains fuses

Electric consumption of the deep fryer

Type	211			311		411		
	422 (2 Supply cables)					422 (1 Supply cable)		
Power capacity	7.5 kW	9 kW	11 kW	11.4 kW	15 kW	15 kW	18 kW	22 kW
AC 230V	32.6 A	39.1 A	-	-	-	-	-	-
3AC 230V	18.8 A	22.6 A	27.6 A	27.6 A	37.65 A	37.65 A	-	-
3AC 400V	10.8 A	13 A	15.8 A	15.8 A	21.7 A	21.7 A	26 A	31.6 A
3NAC 400V	10.8 A	13 A	15.8 A	15.8 A	21.7 A	21.7 A	26 A	31.6 A
3AC 440V	9.9 A	11.8 A	14.5 A	14.5 A	19.7 A	19.7 A	23.6 A	28.9 A

1.4.6.3 Connection cable

Type	211	311	411	422
No. Of cables	1	1	1	1 or 2
Cable length (m)	2	2	2	2
Connector Plug	No	No	No	No

1.4.6.4 Ambient conditions

Type	211 – 311 – 411- 422
Min Temperature. (°C)	+ 5
Max Temperature. (°C)	+ 60
Max humidity.. (%)	60

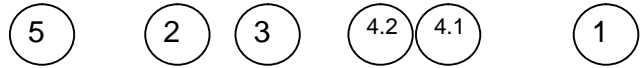
1.4.6.5 Connection of the control print.

The fryer is delivered with the control box separated from the peripheral elements (probe, switch, lift).

(*) colour of the multi-conductor cable

1. Connection of the power unit box

1. Control pump (*Grey)
2. Control lift (+)
3. Control lift (-)
4. Piloting the work contactor (*Black)
5. Control (Piloting) safety contactor (*brown)
6. NC



2. Connection of the switch (detection /heating element

3. Buzzer SOLAS

4. Probe of temperature

- 4.1 Regulation (Green = (+) / White = (-)
- 4.2 Security (Green = (+) / White = (-)

5. Connection

- Grey: 0V (*blue)
Orange: +24Vdc (*red)

2. Safety regulations

2.1 Warning advice

2.1.1 Warning symbols used (depending upon country)

The following warning symbols are fitted to the deep fryer as appropriate:

High voltage



- . Warning of dangerous electrical voltage
- . Electric shocks lead to serious injury or death.
- . Only authorized specialist personnel may carry out work on electrical installations.
- . Follow the specific technical safety instructions!
- . Always disconnect the deep fryer from the mains power before carrying out work on electrical installations.

Hot surfaces / hot internal components



- . Warning of heat which can lead to injuries.
- . Always allow hot surfaces to cool down before carrying out work on these components; or wear heat resistant gloves.

Hot frying oil



- . Warning of hot frying oil which can lead to injuries.
- . Always allow the hot frying oil to cool down before carrying out work on submerged components-or wear safety glasses.

2.1.2 Mounting positions of warning symbols (depending upon country)



Advice

- . The manufacturer has mounted warning symbols (stickers) at all the relevant positions on a deep fryer before delivery.
- . If during operation or within the scope of cleaning work any of these warning symbols become detached the operator of the deep fryer is obliged to apply these warning symbols again immediately!

2.1.3 Safety instructions in the operating manual

In this operating manual there are three stages of safety advice:

First stage:



WARNING

- . A warning advises of a high level of danger, Non-observance of the respective safety regulation can lead to injuries or death.

According to the type of danger, instead of STOP one of the following symbols may be combined with the signal word warning:

WARNING



- . Warning of electric shock

WARNING



- . Warning of heat.

Second stage:



CAUTION

. The CAUTION symbol highlights important instructions. Non-observance of these instructions can lead to damage to the deep fryer or to other material assets.

Third stage :



ADVICE

. ADVICE texts contain supplementary information to increase the general level of safety and to ease the work.

2.2 Basic safety regulations

2.2.1 Specified use of the deep fryer

The deep fryer is exclusively intended for the frying of fresh and deep-frozen foods which during the frying process do not react to endanger people, material assets or the environment.

The V05 deep fat fryer is exclusively authorized for supervised operation.

Any other use of the deep fryer is regarded as non-specified.

The observance of the operating manual and the following of the maintenance and repair instructions from the manufacturer are also part of the specified use.

2.2.2 Specific dangers and instructions



WARNING

- . The deep fryer is exclusively authorized for supervised operation.
- . If the oil receptacle pot contains hot frying oil, protective clothing, gloves and safety glasses must be worn while handling.
- . Never hose down the deep fryer with water from a spray head, a water hose or a high-pressure cleaner.
- . There is a danger of fire and/or the safety thermostat will switch off the deep fryer if it is started up without first filling it with fat or frying oil to above the bottom oil level mark.
- . During operation the frying oil level must not fall below the bottom oil level mark. There is a danger of fire and/or the safety thermostat will switch off the deep fryer.
- . During operation the frying oil level must not go above the upper oil level mark. There is a danger of overflowing or frothing over.
- . Used, contaminated frying oil is increasingly likely to ignite and also tends to froth over.
- . If the frying oil ignites never try to quench it with water but instead immediately put on the frying pot (pot) cover or use a fire extinguisher with a special filling (Halon) or use a quenching cover.



CAUTION

- . If too much deep-frozen or wet frying product is put into the hot frying oil frothing over of the hot frying oil will occur and this will reduce the quality of the fried food.
- . Do not move the deep fryer in the heated state. This leads to a risk of the hot oil slopping over.
- . For safe draining or transferring the frying oil it must have cooled down to a temperature below 175°C.
- . Never clean the submerged heater with a steel brush or by burning off (dry operation). Verifiable improper cleaning of the submerged heater will lead to the exclusion of all guarantee.

2.2.3 SAFETY REGULATIONS

WARNING



- . If incorrectly operated, the deep fryer can cause serious or fatal injuries to personnel. The personnel who operate and maintain the deep fryer must be trained in the correct operation and handling of the appliance and must have read and understood the safety regulations in this operating manual before starting work on or with it.

WARNING



- . Never change or remove safety devices.
- . Do not switch off safety devices by making changes to the deep fryer.
- . Never remove warning symbols which may have been fitted to the deep fryer (depending upon country). Immediately replace missing or defective warning symbols.

WARNING



- . Never operate the deep fryer in a damaged condition.
- . Report immediately any irregularities, especially those which affect safety, to your managers.

WARNING



- . When exchanging electrical or mechanical components ensure that the deep fryer is disconnected from the mains power supply.
- . Always check all safety functions after completing servicing work.

2.3 Safety equipment

2.3.1 General

Apart from the warning symbols applied to the deep fryer (depending upon the country) it is also fitted with the following safety equipment:

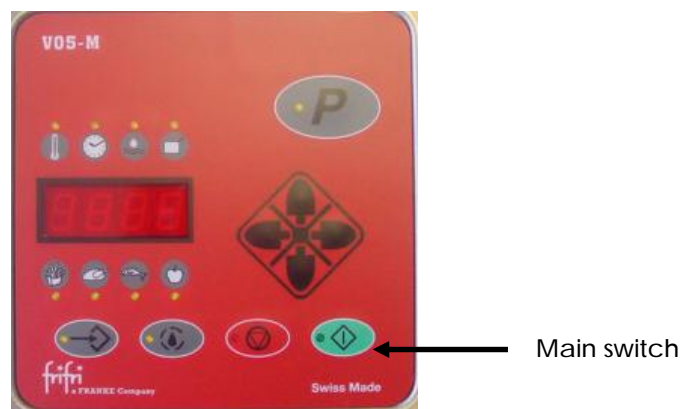
Main switch

Safety contactor

Safety thermostat

2.3.2 Main switch

The main switch disconnects the deep fryer from the mains and connects it up again.



2.4 Authorized personnel

2.4.1 General

Only those personnel who have been authorized for the respective work may work on and with the deep fryer. Personnel are seen as authorized if they fulfil the minimum training and knowledge requirements as listed in this section and have been assigned a fixed area of responsibility.

2.4.2 Area of responsibility of personnel

2.4.2.1 Owner/operator

The owner/operator is the legally, higher-ranking person who is responsible for the specified use of the deep fryer and for the training as well as the tasks of the authorized personnel. He establishes the competencies and authorities to issue directives of the authorized personnel with respect to his operation.

2.4.2.2 Operator of the deep fryer

He is responsible for the following work:

- . He fills frying oil into the deep fryer.
- . He monitors frying quality and tops up the frying oil and carries out cleaning and filtering.
- . He starts up the process and monitors it.

- . He prepares the deep fryer for the product to fry
- . He loads the deep fryer with the food to be fried.
- . He localizes problems and organizes their rectification.

2.4.2.3 Service personnel

2.4.3 Maintenance personnel

He is responsible for the following work:

- . The cleaning, maintenance and repair of the deep fryer according to the work described in Sections « 6. Maintenance and 7.Fault rectification»
- . The dismantling, storing and disposal of the deep fryer.

2.4.3.1 Minimum training and qualifications of the authorized personnel

2.4.3.2 Owner/operator

- . He is a person trained in business management (in a management function).
- . He has the relevant experience in assessing dangers and in personnel management.
- . He has read and understood the section « 2. Safety regulations »

2.4.3.3 Operator of the deep fryer

This is a person who has been instructed in the operation of the deep fryer and is aware of the existing dangers.

2.4.3.4 Service personnel

These are people who have completed successfully the relevant occupational training, are familiar with the servicing of the deep fryer and have the necessary qualifications from their tasks.

Servicing work on the electrical equipment of the deep fryer may only be carried out according to the electro technical regulations by electrical specialists or by trained personnel under the leadership and supervision of an electrician.

2.5 Duty of maintenance

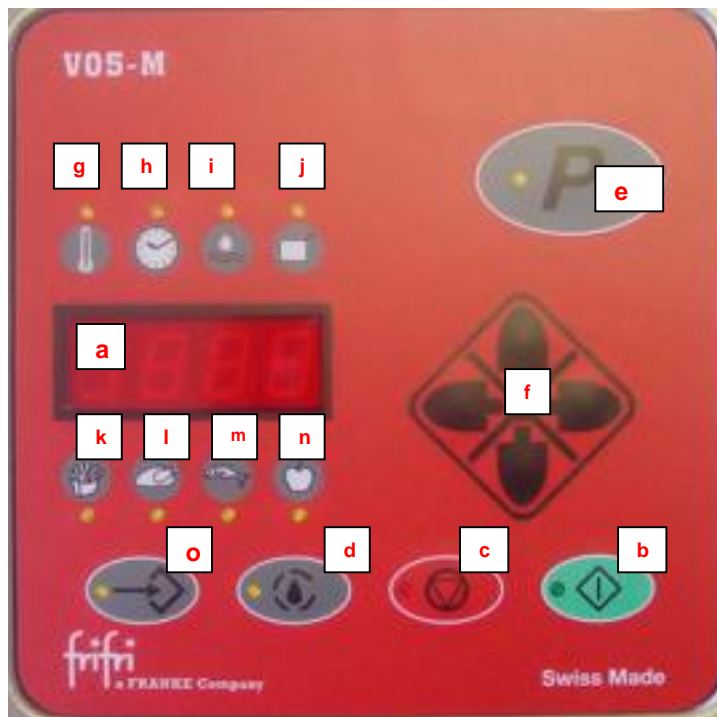
The owner/operator is obliged to clean and maintain the deep fryer at regular intervals.

- . To only operate the deep fryer in perfect and undamaged condition.
- . To only use original consumables and original spare parts.
- . To check the safety equipment-after maintenance and repair work-for the correct function « 2.3 Safety devices, 2 - 6.).

2.6 Availability of operating manual

A copy of this operating manual must be available at all times to the personnel at the installation location of the deep fryer.

3. Display element



- | | |
|--|---|
| a. Display : | Shows the values of the parameters. |
| b. Button « On/Off » + Green led : | ON/OFF switch. Put the control panel under tension and cut off as well
The LED symbolize the status of the function. |
| c. Button « Safety Reset » + red LED : | Reset the safety thermostat.
Illuminated LED indicate an overheating or another failure. |
| d. Button « Pump » + yellow LED : | Control of the oil pump, active only if the control is Off. |
| e. Button « Start Program » + yellow Led « heating » : | Start frying cycle
Stop of the buzzer "shake time" and end of frying cycle
Reset frying cycle
The led symbolize that the fryer is in phase of heating. |
| f. Navigation pad : | Choice of the parameter and the instruction |
| g. Led parameter « Temperature » | Indicate the parameter on display |
| h. Led parameter « Time » | Indicate the parameter on display |
| i. Led parameter « cast Iron of fat » | Indicate the parameter on display |
| j. Led parameter « Shake » | Indicate the parameter on display |
| k,l,m,n. Led « Program » | Indicate the parameter on display |
| o. Enter key « Program » | Allows to enter into the program mode
(to press simultaneously with the On/Off button) |

4. Starting up

4.1 General



ADVICE

- . Carry out the start-up procedure which is displayed in your specific case.
- . The start-up procedure includes all work which is required before the actual frying process.
- . You can find the operating instructions for the frying process in Section « 5.Operation, 5-1 »

4.2 Initial commissioning following installation

1. Carry out the necessary checks and preparatory work.

CAUTION



- . Remove any remains of packaging which are still around.
- . Clean the deep fryer and the accessories, which accompany the delivery, with a non – caustic cleaning agent, which is permitted for the food area.
- . Check that the deep fryer is correctly levelled and is firmly fixed to the floor, wall or within a combination unit.
- . Check that the deep fryer is correctly connected to the mains power circuit- by direct cabling or by a power plug.

2. Prepare frying liquid for the frying process (See Section « 5. Operation, 5-1»

4.3 Orderly start-up

An orderly start-up assumes that the deep fryer has not been disconnected from the power circuit.

After checking the frying pot and the oil receptacle (and if necessary the frying oil pump and the frying basket lift) the deep fryer can be switched on.

4.4 Restarting after a malfunction incident

Restarting after a malfunction assumes that the deep fryer has not been disconnected from the power circuit, if ...

- > ... the safety thermostat has triggered.
- > ... the safety thermostat has been reset.
- > ... a service technician has rectified a defect on the appliance.

After checking the pot and the oil receptacle the deep fryer can be switched on again.

5. Functioning of the deep fat fryer

5.1 Starting up of the control panel

Remarks:

If the fryer undergoes a general power supply cut-off, it is obligatory to initialize the thermostat of safety during its first powering.



. Button « On/Off » (1) Puts the control panel under tension. The green led indicates that the temperature control is operational.

. Button « Reset » (2) The button "Reset" (2) allows to initialize the safety thermostat and authorizes the piloting of the heating.

The red led switch off when the thermostat is initialized.

5.2 Fat melting cycle (FMC)



The position fat melting cycle allows to melt slowly fat by heating up with breaks in between. In this way the fat is liquefied and heated up without any smoke and deterioration

By switching "ON" of the control panel, the fryer goes automatically into the FMC position.

. The yellow led (4) of parameter FMC is then switch on.

. The display (5) shows alternatively the real temperature in the vat and the setting of the FMC

It is possible to adjust the setting between 60 and 90°C

If you do not wish to use the function FMC, you can select directly the requested frying temperature, but the fryer will continue the alternate heating phase (factory setting) to obtain a temperature equal to the FMC setting.

.Afterwards it will heat continuously to reach the selected frying temperature.

5.4 Frying cycle



To pass from the FMC cycle to a frying program, it is necessary to press the button "P" (1).



. The yellow led (2) of the parameter "Temperature" switch on.

. The display (3) shows in alternation the real temperature in the vat and the selection (example : 190°C).

. The yellow led (4) indicate the selected program (In that case: program French fries)

The led of the touch "P" (5) flashes when the deep fryer is in phase of heating and becomes fixed when the instruction is reached.

Remarks :

It is possible to change from one program to another by the button of the navigation pad (↓/↑).

For the first four programs (chips, chicken, fish and dessert) the respective led is illuminated.



. To start a frying cycle, it is necessary to press the button « P » (6).



- . The yellow led (7) of the parameter « Time » is switched on
- . Display (8) shows the selected frying time.
- . If the temperature of the oil is equal or higher as the selected one:
 - * The basket lift receives the order to go down
 - * The count down of frying time begins
- . If the temperature of the oil is lower than the selected one:
 - The order to lower the basket lift is memorised but the basket lift will only lower once the selected frying temperature is reached



Shake Time

After 30" an acoustic signal gives information to the user to shake the basket.

- . The yellow led (9) of shake is illuminated.
- . The acoustic signal is active during 10''
- It is possible to stop it by pressing the button « P » (10)

Remarks :

The function of the shake can be removed, see the section "programming mode"

By the installation of the fryer its possible to go into action on the control print and to modify the configuration:

. Stop of the buzzer (either manual or automatic after 10 ' ')

For the shake and the end of frying cycle refer to section "Programming of the functions"



End of frying cycle

- . The display (11) flashes on « 0.00 ».
- . The acoustic signal is valid during 10' ' it is possible to stop it by pressing the button « P » (12)
- . The lift receives the order to go up.
- . The fryer is ready to start a new start frying cycle.

5.5 Reset of an already launched frying cycle, V05 « M »



The reset of the frying cycle is possible by maintaining the button "P" pressed during three seconds.

5.6 Programming of the parameters

5.6.1 Programmable parameters

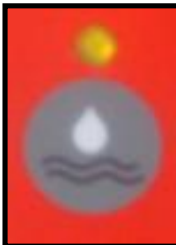
The parameters who can be changed are the following:



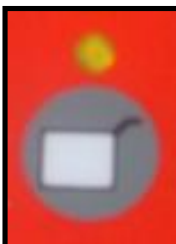
Temperature:
Selection from 130°C up to 190°C



Frying time:
Selection from 0.00 up to 59.59 min



Temperature of fat melting cycle and "Stand-by" position:
Selection from 60°C up to 90°C



The shake Time (fix at 30''):
ON (active) / OFF (inactive)

5.6.3 Programming of the VO5 « M » range

The V05 "M" range has 10 frying program, the modification of the parameters is realized in the programming mode.

The modification of the settings can only be done in one program and not on several at the same time. If you need to change parameters in different programs please repeat the operation described below step by step.



To enter into the «program Mode»:

- The control must be switched off.
- Press simultaneously on the button:
 - . « Enter key » and « ON / OFF »



« Program mode »:

- . The led of the enter key is illuminated (1)
- .The Buzzer signal warns that we are in program mode
- . The control unit goes on program 1:
 - * The digital display shows the program number (2).
 - * The led program «Fries» is switched on (3).



« Choice of the program »:

- . Select the program you would like to change by the navigation pad (↓ / ↑).

Remarks:

In our example we choose to modify the program « Fish ».



« Example Program 3 »

- . The digital display shows the selected program 3 (5).
- . The led program «Fish» is switched on (6).
- . Then you validate your choice while pressing on the button "Enter key" (7).



« Modification of the parameters »

- . The control unit switch on the parameter temperature (8).
- . The display shows the last temperature in the memory (9).
- . You can now:

* Select another parameter by the button of the navigation pad (← / →) (10).

* Modify the parameter of the temperature by the buttons of the navigation pad (↓ / ↑). (11).

Remarks:

In our example we choose to modify the parameter « time ».



« Modification of the parameter time »

- . The control unit switch to the parameter time (12).
- . The display shows the last time in the memory (13).
- . Modify the parameter by the buttons of the navigation pad (↑ / ↓) (14).

Remarks:

In our example we choose to modify the parameter "time" with an instruction of 3.46



« New selection »

- . The new selection flashes (15).
- . You have to validate your choice by pressing the Enter Key (16).
- . The new instruction is in memory, the display becomes fix with the new value.

Remarks:

You can change the other parameters of program 3 in the same way.



« To leave the programming mode »

- . You can leave the "programming Mode" at any time by pressing the button « ON / OFF » (17).



« The control unit of the deep fat fryer is disconnected from the tension »

5.6.4 Automatic stand-by

After 20 minutes of non use of the fryer in the frying mode, the fryer goes automatically into the "Stand-by" mode (equivalent with the FMC).

It is possible to modify on the control print (PCB board) the setting of this function. Refer in the section « Modification of the of factory settings »

5.6.5 Modification of the factory settings



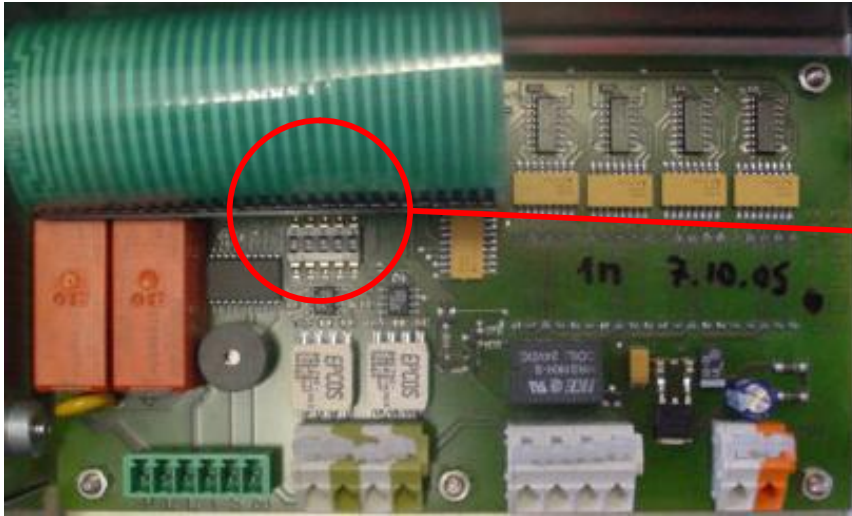
The VO5M range has different factory settings which can be changed if needed by a technician who is certified by frifri aro S.A.

To change these settings an intervention on the main print board is needed and the fryer must absolutely be disconnected from the supply network.

Pour Changer ce réglage, il faut intervenir sur la carte de régulation en séparant impérativement la friteuse du réseau électrique.

After having disconnected the fryer from the supply network you need to take off all the steel sheets covering the main control board.

There is a bloc of micro switch on the PCB board with two positions (ON or OFF). You need to put the switch in the requested position according to the following table.



Main switch number	1	2	3	4	5
Function	Display Temperature	FMC / Stand-by	Reset Buzzer	Twin	Measure of the Temperature
ON	°F	Continuous	Manuel	Slave	Master
OFF	°C	Automatic after 20 minutes	Automatic after 10''	Master	Slave

5.7 Drain out frying oil

Advice



. The procedure described in the following is also valid in the general sense for exchanging the frying oil or the frying oil filter.

. If the deep fryer is equipped with the option pump, the oil can be pumped between the oil receptacle and the vat

5.7.1 Procedure without optional oil pump

Wear protective clothing, gloves and safety glasses !



- Open the drain valve by turning down the drain tab of ¼ anti-clockwise.
- Let the oil run at a temperature of max. 60°C into the receptacle.
- The residues from frying will be kept back by the coarse filter.
- Close the drain valve again.
- Wipe the tank with a cloth.
- Put the filtered oil back into the tank and add oil if required, up to the MAX. mark



5.7.2 Optional oil pump system

5.7.2.1 Operation of the oil pump system

- . The operation of the oil pump system becomes activated by the button pump.
- . The led of the push button indicates if the order of pumping is active.



Remark:



The pumping cycle is set at maximum 6 minutes and the system stops automatically but it is possible at any time to stop the function while pressing on this same push button "Pump".

- . The control knob pump is active if the fryer is « Off » (1). The LED of the push button «On / Off» is off

5.7.2.2 How to use the optional oil pump



Wear protective clothing, gloves and safety glasses!

1. The maximum temperature for the oil pump should not be of more than 175°C.
2. Fix the flexible red tube to the drain pipe.

Flexible red tube:



Drain pipe:



Assembled unit:



3. Fix the assembled unit to the fast coupling in the rear of the fryer.



4. Open the drain tap and let flow the frying oil from frying pot into the oil receptacle.



5. Start the pump by the pressing the button "Pump" on the control panel.



6. Rinse the vat and the heating element or evacuate oil into an external vat if the oil is used.



7. Close drain tap.



8. Wait up to the end of the pump cycle or stop it manually by the control knob.

9. Fix the drain pipe directly to the fast coupling in the back of the fryer by uncoupling it from the red tube.



Caution:

Parts can be very hot causing burnings. It's imperative to wear gloves isolating heat.

The pump must be stopped for this operation.

10. Finish the pumping of the oil which is in the oil receptacle, check oil level and if required fill up with fresh oil up to the maximum mark.

Attention: Do not run the pump without oil.



If you are using cleaning or rinsing products it's imperative to let circulate oil after the cleaning process because residual oil in the head of the pump has a start up role by the next pumping cycle.

6. Maintenance

This section deals exclusively with the preventative maintenance of the deep fryer. In the case of faults section should be consulted « 7. .1 »

6.1 Maintenance plan

6.1.1 Interval

6.1.1.1 Cleaning intervals

<i>Cleaning area</i>	<i>Daily</i>	<i>Monthly</i>
External surfaces and covers	<	
Control panel	<	
Drain pipe and flexible red tube	<	<
Frying pot	<	
Frying pot cover	<	
Frying basket	<	
Frying basket holder	<	
Internal surfaces and covers	<	
Connecting cable		<
Oil receptacle	<	
Deep fryer surrounds	<	
Heating element/submerged heater	<	

6.1.1.2 Frying oil exchange

<i>Frying oil</i>	<i>Daily or according to Intensity of use</i>	<i>According to wear and situation</i>
Sieve	<	
Exchange		<

6.1.1.3 After-sales service

The detailed work, which should be carried out within the scope of the basic service and intermediate service, can be found in the separate

Interval [Years]	Deep fryer in normal use (less than 8 hrs/day)	Deep fryer in intensive use (8 to 12 hrs/day)	Deep fryer in « fast food“ use (more than 12 hrs/day)
1.	Intermediate service	Intermediate service	Intermediate service
2.	Intermediate service	Intermediate service	Basic service
3.	Intermediate service	Basic service	Intermediate service
4.	Intermediate service	Intermediate service	Basic service
5.	Basic service	Intermediate service	Intermediate service
6.	Intermediate service	Basic service	Basic service
7.	Intermediate service	Intermediate service	Basic service
8.	Basic service	Basic service	Basic service
9.	Intermediate service	Intermediate service	Basic service
10.	Intermediate service	Basic service	Basic service
etc.	Basic service every third year	Basic service every second year	Basic service each year

6.2 Periodic checks

Rotary knob (Cleanliness, fixing, function)	<
Oil catchment container (cleanliness, filling level)	<
Frying oil quality according to hygiene regulations	<
Frying pot (Cleanliness, settled frying residues)	<
Drain pipe and fast coupling (cleanliness, function, sealing after installation)	<
Submerged heating (surface)	<

6.3 Cleaning

6.3.1 Cleaning work

Caution



- . Only use non-caustic, non-abrasive cleaner.
- . Only use non-abrasive cleaning cloths.
- . Only use cleaners which are permitted for the food area.
- . Always carry out cleaning work only after the frying oil and the deep fryer have cooled down to a temperature level at which no scalding can occur.

Cleaning area	Cleaning work
External surfaces and covers	Clean with damp cloth
Control panel	Clean with damp cloth
Fast coupling (option pump)	Cleaning agent / hot water
Frying pot	Dishwashing/ hot water
Frying basket	Dishwashing/ hot water
Frying basket holder	Dishwashing/ hot water
Frying oil pot cover	Dishwashing/ hot water
Internal surfaces and covers	Clean with damp cloth
Connecting cables	Clean with damp cloth
Oil receptacle container	Dishwashing/ hot water
Deep fryer surrounds	Clean with hard and soft brushes and damp cloths and follow special instructions if necessary

7. Fault clearance

7.1 Check list for fault finding

V05 «M »
Error 1: . Break down or disconnection of the working probe
Error 2: . Overheating, the temperature of the frying oil is over 225°C
Error 3: . Connection of the working probe is inverted



7.2 Safety Thermostat

The deep fryer is equipped with a safety thermostat according to the current regulations.

The safety thermostat triggers at a temperature of 225 °C.

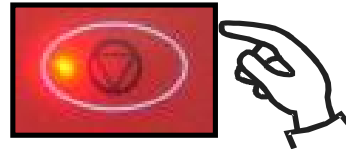
The safety thermostat switches off the deep fryer in the following situations:



CAUTION

- . The control thermostat is defective.
- . If the connecting of the temperatures probes is defective.
- . A power failure (mains) has occurred.
- . The frying oil temperature is too high.
- . The heating elements are heating « dry » i.e. no frying liquid is present.
- . Too little frying liquid is present.

To restart the fryer after a shut down by the safety thermostat a pass through the position « 0 » is required



ADVICE



- . Clarify reason for the triggering of the safety thermostat.

8. Shutting down and storage

This section provides the necessary advice for the situation where the owner/operator of the deep fryer wishes to shut the appliance down and store it for a long period.

This refers to the desired shutdown of the deep fryer and not the non-use of the appliance for operating or production reasons.



WARNING

The work of shutting down and storing the deep fryer may only be carried out by personnel who are authorized to carry out such work. They must fulfil the qualification and training requirements for service personnel according to section « 2-1 »

You should proceed as follows for the shutting down work:

1. Disconnect the deep fryer from the electrical supply.



CAUTION

Be sure to follow the local regulations for handling frying oils (disposal, water pollution regulations etc.).

2. Drain frying oil (See section « 5.4 Drain out frying oil, 5-11)

ADVICE



Ambient conditions for storage

- . Be sure to follow these specifications since the deep fryer could suffer damage otherwise !
- . Temperature range: + 5 °C to + 60 °C
- . Relative humidity: 20 % to 60 %
- . Restarting: See section « 4. Starting up, 4-1 »

9. Packing and transport



WARNING

- . Only personnel with shipping and transport experience are authorized to carry out the packing and transportation of the deep fryer.
- . The safety regulations in Section, 2 Security, 2- 1 »

The following advice must be followed for packing and transport:

1. Disconnect the deep fryer from the electrical supply.

CAUTION



. Be sure to follow the local regulations for handling frying oils (disposal, water pollution regulations etc.)

2. Drain frying oil (see section « 5.4 Drain out frying oil »
3. Place the deep fryer on a suitable transport base in the vertical position (all lines emptied, frying pot and oil receptacle emptied, frying baskets removed as necessary) and fix to the transport base. etc.)

CAUTION



. When securing the deep fryer onto the transport base it must not be subject to chafe at the fixing points.

10. Disposal



WARNING

. Only personnel with the necessary qualifications and training may carry out the dismantling and disposal of the deep fryer (service personnel according to Section « 2.Safety regulations, 2-1 »).

. The safety regulations in Section « 2. Safety regulations, 2-1 » must be strictly followed !

The following advice must be followed for disposal:

1. Disconnect the deep fryer from the electrical supply.



CAUTION

Be sure to follow the local regulations for handling frying oils (disposal, water pollution regulations etc.).

2. Drain frying oil (see section « 5.4.5.2 Drain out frying oil »)

. Dismantle the deep fryer and recycle the individual parts according to the type of material. Dispose of non-recyclable materials according to type.

ADVICE



. Your local authority can provide information on disposal and collection points.

. When disposing of materials it is essential to follow the relevant country and regional laws and guidelines.

. The deep fryer contains no materials, the disposal of which required special approval.

11. Spare parts list, ordering, supplementary documents.

In order to avoid misunderstandings in the ordering of consumables and spare parts, we request that you always provide the following data with your order:

- . Appliance identification according to the type plate
- . Description and article number of consumer material or spare part according to the separate material list supplied by the manufacture with the appliance.
- . Amount of required consumables and/or spare parts



ADVICE

Definition

Consumer goods and spare parts, which are specifically for the deep fryer, are all components which are listed in the separate material list supplied by the manufacture with the appliance. It is essential to use these components.

Consumer goods and spare parts which are specifically for the deep fat fryer, are to be exclusively procured from « frifri aro SA » or its contract partners. If during the guarantee period a claim is made in which it is established that spare parts, which were not specific to the deep fryer and were not made by « frifri aro SA » have been installed, then the remaining guarantee period of the appliance becomes invalid.

The firm of « frifri aro SA » declines any form of liability if it is established in a case of product liability that spare parts which were not « frifri aro SA » products made specifically for the deep fryer, have been installed.

Order address

frifri aro SA
Chemin de St. Joux 7
CH-2520 La Neuveville

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e-mail info@frifri.com