

# MANUAL

DOUGHNUT FRYER  
model:  
DFIZ240



# CONTENTS

- 0. Declaration of conformity.....3
- 1. introduction.....4
  - 1.1. foreword.....4
  - 1.2. warranty validity and conditions.....4
  - 1.3. Directions and notes to the user.....5
- 2. manual-the machine description.....6
  - 2.1. foreword.....6
  - 2.2. Description2.....7
    - 2.2.1. Description of the fryer.....7
    - 2.2.2. description of the electrical cabinet.....9
  - 2.3. Dimensions and other characteristic fact.....11
- 3. Installation and usage manual.....13
  - 3.1. foreword.....13
  - 3.2. The working place assemble.....13
  - 3.3. Transportation of the machine.....14
  - 3.4. Assemble and installation.....14
  - 3.5. Starting and operating.....15
- 4. Maintenance of the machine.....17
  - 4.1. foreword.....17
  - 4.2. Oil refilling.....17
  - 4.3. Oil exchanging.....17
  - 4.4. Water refilling.....18
  - 4.5. Possible operating problems.....18
- 5. Ingredients safety and hygienic instructions.....19
  - 5.1. General.....19
  - 5.2. Mechanical dangers and risks.....19
    - 5.2.1. Danger zone 1.....19
    - 5.2.2. Danger zone 2.....19
    - 5.2.3. Danger zone 3.....19
  - 5.3. High temperature risks.....20
  - 5.4. Electrical parts risks.....20
  - 5.5. Safety marks.....20
  - 5.6. Ingredient a hygienic conditions.....20

## **EZ – IZJAVA O SUKLADNOSTI** **EC – DECLARATION OF CONFORMITY**

**Proizvođač/ime i adresa**  
Manufacturer/name and address

**GGM Gastro International GmbH**  
Weinerpark 16, 48607 Ochtrup, Germany

**Ovlašteni zastupnik/Ime i adresa**  
Authorized representative/name and address

\_\_\_\_\_  
\_\_\_\_\_

Vlastitom odgovornošću izjavljujemo da je  
We declare under our sole responsibility that

**Proizvod** product designation  
**Marka** brand  
**Tip/model** type/model

**Friteza za krafne**  
GGM Gastro International  
**DFIZ240**

U skladnosti sa sljedećim pravilnicima  
Is conformity with the provisions of the following regulations

1. Pravilnik o električnoj opremi / "Low voltage" directive  
Directive 2006/95/EC
2. Pravilnik o elektromagnetskoj kompatibilnosti / "EMC" directive  
Directive 2004/108/EC

**SIQ certificate No. C211-0027/10**  
**SIQ test report No. T211-0140/10**

**Mjesto i datum izdavanja**  
Place and date of issue

**Ime, prezime i potpis ovlaštene osobe**  
Name, surname and signature of authorized person

## 1. INTRODUCTION

### 1.1. Foreword

The manual contains all the relevant information and facts for the usage of the DOUGHNUT FRYER DFIZ240.

It is necessary to read it carefully before operating it.

All the given publications should be kept in a safe and visible place so that the personnel and workers can use it. The manual should be kept in a dry place, if possible in an envelope protected from light, moisture and atmosphere. The producer is not responsible for possible defaults and invalid work of the machine that may occur because of invalid and careless operating and maintenance.

### 1.2. Warranty: validity and conditions

The warranty is valid 12 months from the day of the delivery and refers to the parts where the failure is found. The parts damaged in transportation, invalid installation or maintenance and careless usage are not covered by warranty.

The warranty is only valid for the first purchaser and the machine cannot be changed under any circumstances.

The warranty stops if the machine is not handled in an appropriate manner or the repairs and changes are not carried out by the personnel authorized by GGM Gastro International GmbH.

The producer is not responsible for any damage -direct or indirect-which affects people, animals or things because of the fault on the machine or enforced operation stop. Repairmen or exchange of the invalid parts is usually carried out in the purchaser's space. If experts evaluate that it is not possible to do so, the purchaser should deliver the machine to GGM Gastro International GmbH and they will return the machine after the repairmen to the place agreed. When the warranty expires, the operations needed are done with charging the fees for workers, travel expenses, spare parts expenses and possible transportation of the spare parts.

The warranty should be filled with the data required and returned to GGM Gastro International GmbH in order to take effect 2 weeks from delivery. If the purchaser cannot produce a copy of a warranty list which should be saved, it is assumed the warranty period has expired.

### 1.3. Directions and notes to the user

The producer refuses every responsibility for damages to the people, animals and things occurred because of disrespect of the following when using and maintaining the machine:



- **THE MACHINE MUST NOT BE USED** for different purposes to the ones approved by the producer
- **THE MACHINE MUST BE PROPERLY** grounded to the scheduled destination for protection from electric shock,
- **EVERY DAY CHECK OF THE SAFETY DEVICES**, general condition and oil level must be done
- **THE MACHINE MUST BE CLEANED** daily
- When loading, adjusting, parts exchanging, cleaning, repairs and maintenance, the necessary measures should be respected and protection should be obeyed, in order to prevent turning on of the machine by other , unauthorized, persons
- **THE SAFETY DEVICES MUST NOT BE DAMAGED**
- **THE SAFETY DEVICES MUST NOT BE REMOVED** except when needed for the work on the machine, provided the measures are taken to minimize and warn on the danger present when such actions take place, and in this manual are described in detail.
- **THE PROTECTION AND THE SAFETY DEVICES** should be returned the moment when the need for their removal stops
- **THE PERSONNEL MUST BE WARNED** of the special dangers connected to their working space
- **CHILDREN SHOULD BE SUPERVISED** to ensure that they do not play with the machine.

## **2. MANUAL-DESCRIPTION OF THE MACHINE**

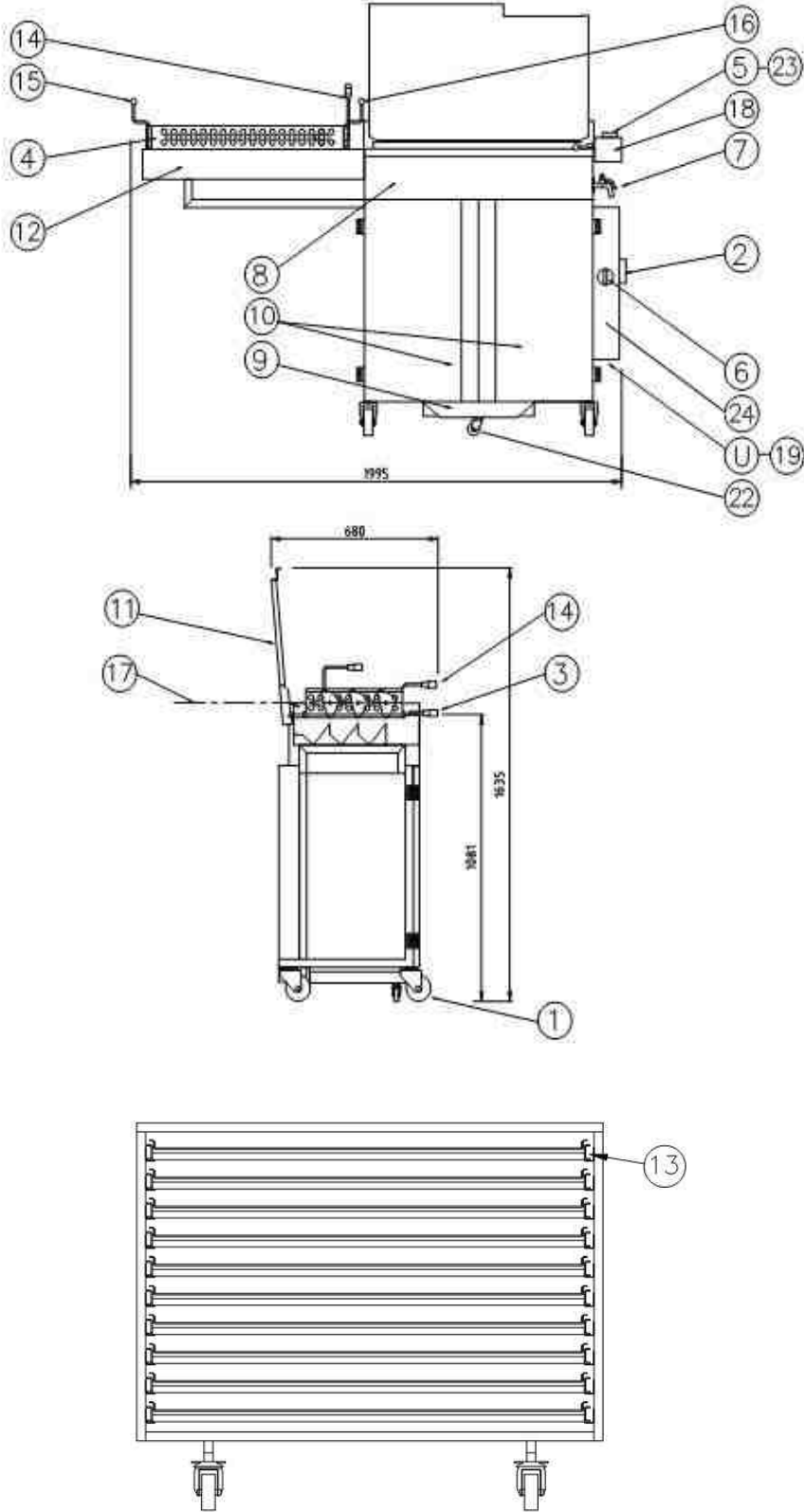
### **2.1. FOREWORD**

The doughnut fryer DFIZ240 is a doughnut frying machine. It is made of stainless steel of AISI 304 quality. It consists of oil tub with 4 baskets. Each can hold 6 doughnuts capacity of a batch is 24 doughnuts. The frying is in automatically heated oil which heat electrical heaters. Lifting and lowering of the baskets is done by hand\_by pulling the lever, and turning the doughnuts during frying and emptying on the perforated draining tin surface (if ordered) is done by lever mechanism.

In the housing case underneath the tub there is a fermenting chamber model where a trolley with 10 floor tray can be placed. The temperature is controlled automatically. Air and water heaters are below the container where the water for the moisture needed is added. We put the shaped dough in the baskets and fill it after frying. Any other use of the machine should be considered dangerous for the life and health of the person who operates it.

## 2.2. Description

### 2.2.1. Description of the fryer



Stroj se sastoji od sljedećih dijelova:

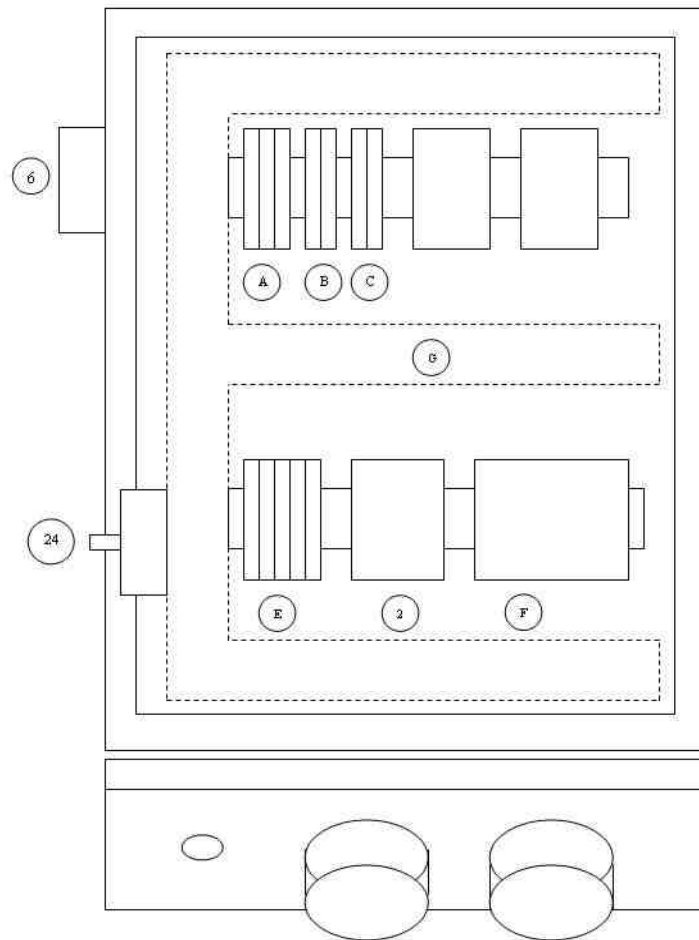
Machine contains following parts:

1	Kotač	Wheel
2	Glavna sklopka	Main switch
3	Ručka za podizanje okvira sa košarama	Basket frame lifting handle
4	Okvir sa košarama	Frame with baskets
7	Slavina za ispušt ulja	Oil draining tap
8	Kada	Tub
9	Generator pare	Steam generator
10	Vrata komore	Door of a chamber
11	Poklopac kade	Tub cover
12	Kada ocjeđivača	Tub of a drainer
13	Kolica sa aparatima	Trolley with trays
14	Poluga za zakretanje košara	Basket rotating lever
15	Ručka za povlačenje košara	basket pulling handle
16	Ručka za povlačenje košara	Basket pulling handle
17	Visina osovinica košara	Basket shaft height
18	Kućište grijača ulja	Oil heater housing
19	Električni ormarić	Electrical cabinet
22	Kotačić posude za vodu	Water container wheel
23	Sigurnosni termostat grijača ulja	Oil heater safety thermostat
24	Sigurnosni termostat grijača vode	Water heater safety thermostat
25	Vijak za uzemljenje aparata	Screw for machine ground



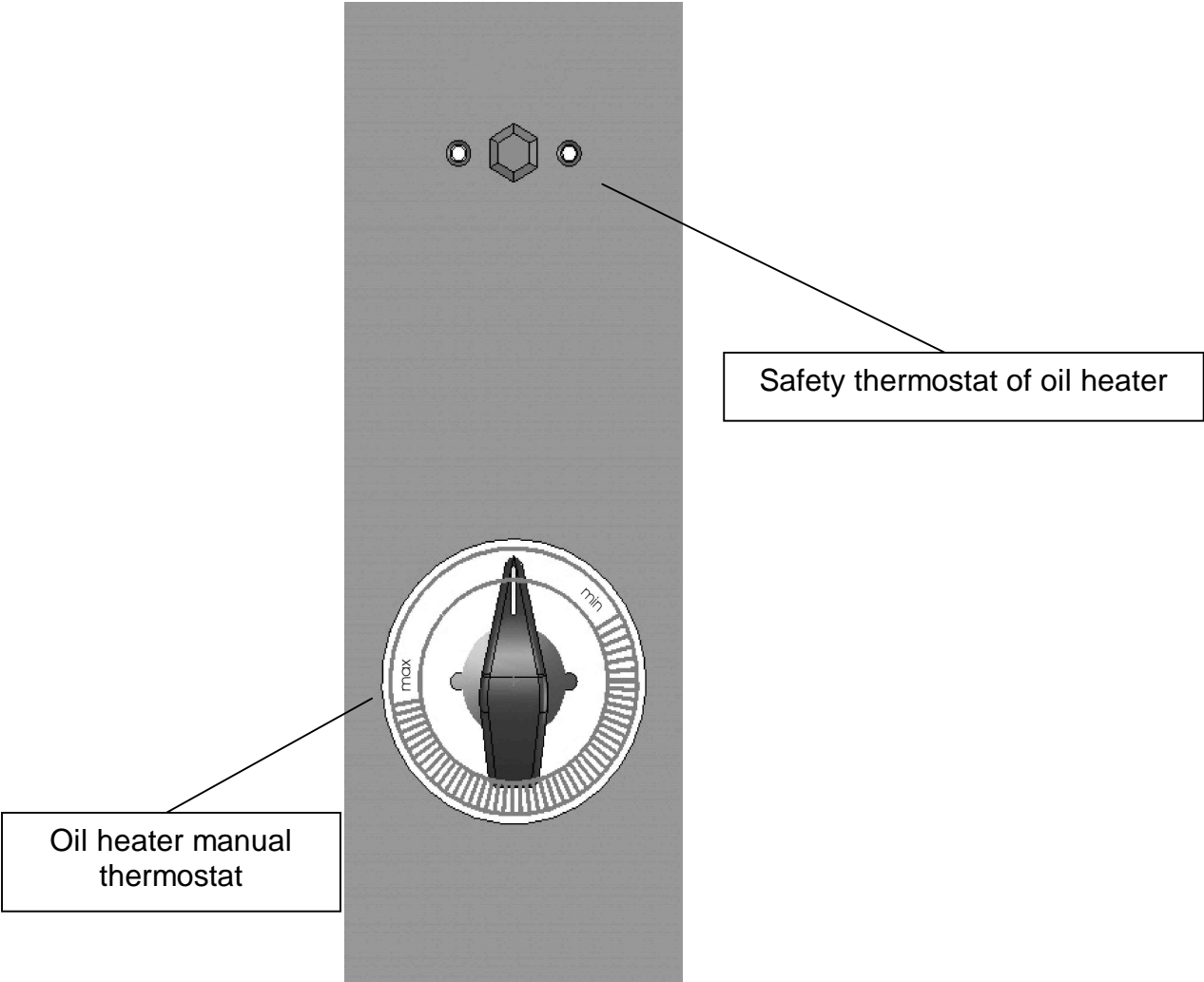
25. Screw for machine ground

## 2.2.2. ELECTRICAL CABINET DESCRIPTION



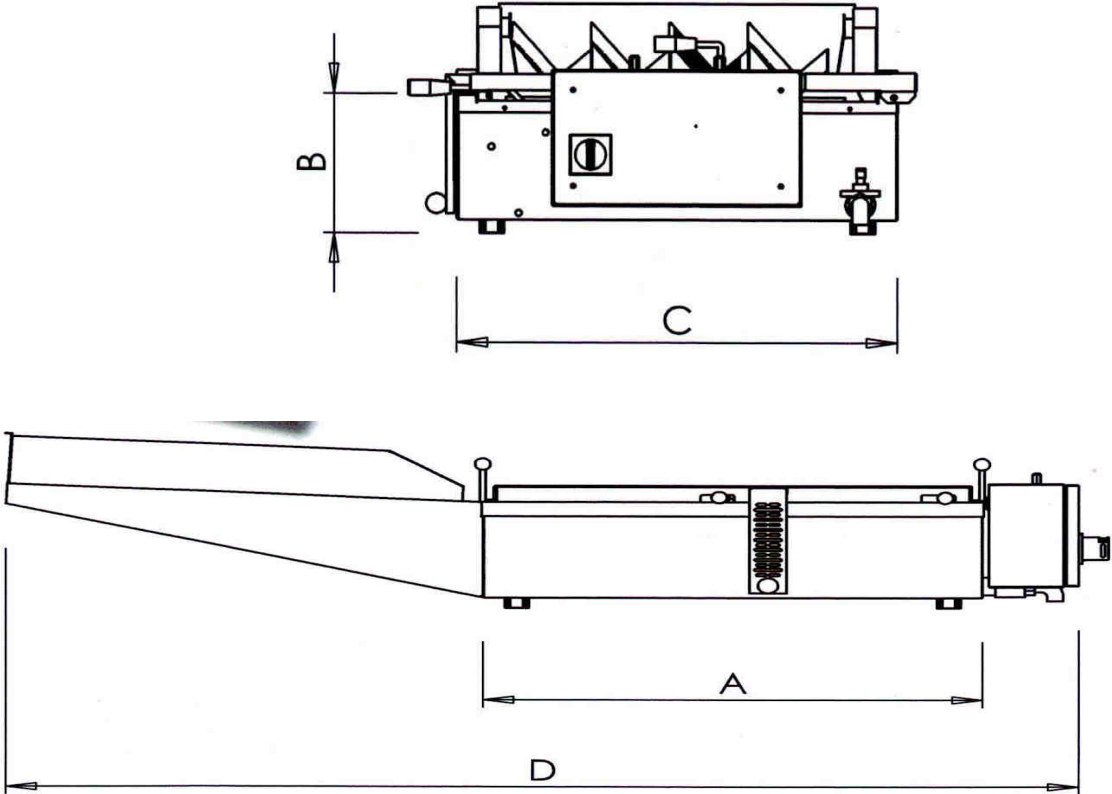
	<b>OPIS / DESCRIPTION</b>	<b>KOM. / PCS.</b>	<b>OZNAKA / MARK</b>	<b>PROIZVOĐAČ / MANUFACTOR</b>	<b>KARAKTERISTIKE / CHARACTERISTICS</b>
<b>2</b>	Main switch	1	+GRO-S1	ABB	3-polna
<b>24</b>	Water heater safety thermostat	1	+GRO-S3	Metalflex	115-10 °C
<b>A</b>	Circuit breaker	3	+GRO-F1	ABB, Tracon	B-16
<b>B</b>	Circuit breaker	3	+GRO-F1	ABB, Tracon	B-10
<b>C</b>	Circuit breaker	1	+GRO-F1	ABB, Tracon	C-1
<b>D</b>	Contactor	2 2	+GRO-K1 +GRO-K2	ABB, Tracon	10-25A 2,5-4A
<b>E</b>	Screw terminals	6		ABB, Tracon	
<b>F</b>	Transformer	1	+GRO-T1	BAJUN	230V 24V

**2.2.3. DESCRIPTION OF THE  
COMMANDS ON THE  
OIL HEATER HOUSING MODEL  
DFIZ240**



**2.3. DIMENSIONS OF THE MACHINE  
AND OTHER CHARACTERISTICAL  
DATA**

model: DFIZ240



TECHNICAL DATA	DFIZ240
A - Total length of the machine (mm)	1580
B - Machine width (mm)	645
C - Working height of the machine (mm)	210
D - Maximum height of the machine (mm)	820
Outlet tension (V/Hz)	1x230V/ ~50Hz
Outlet power (kW)	3,6
Frying capacity (pcs)	24
Tub oil volume (l)	36
Trolley capacity (pcs)	240
Machine weight without oil (kg)	60
IP level of protection	IPX4

## **3. THE INSTALLING AND USING MANUAL**

### **3.1. FOREWORD**

Following the EU 98/37/cee directions and within this manual, the following definitions are given:

1)"Danger zone"-any area in/or near the machine where the presence of the person exposed to a danger means danger for safety and health of that person.

2)"Exposed person"-any person who is completely or partly present in the danger zone.

3)"Operator"-a person or persons in charge of installing, operating, maintenance, cleaning, fixing and transporting of the machine.

### **3.2. The working space settlement**

The space where the machine is to be installed, provided it is meant for production, including the bakery, should meet the following conditions:

- There should be openings large enough for the biggest and bulkiest parts of the machine to pass
- The construction characteristics should fit the valid regulation
- There should be electric installation according to the regulation, and the earthing installation and insert plate should be particularly taken care of, and there should be protective devices against too high tensions and short circuits. Nominal power mark is placed on the inscription table.

Electric installation should completely be realized, maintenance and occasionally controlled by trained person who can assure for every action that it is done according to the regulation and "professional rules".

### 3.3. Machine transportation

The fryer is delivered without the frying oil and fixed on a pallet in an appropriate package agreed. IF, when delivered, the visible faults are spotted the producer should be notified at once. The transporter should be notified for the faults occurred during the transportation.

The forklift is needed for manipulation and transportation. Prior to unloading it is needed to control the package to see if it is damaged in transportation, so that the machine, so that the machine does not slide from the pallet.

**THE MACHINE SHOULD BE UNLOADED FROM THE PALLETTE ON THE FLOOR, NOT USING THE FORKLIFT!**



Otherwise, the housing and the steam generator could be damaged. Special care should be taken when placing the machine on the ground, so that the wheels are not damaged.

### 3.4. The installation

Prior to the installation it is necessary to:

1. Place the machine to the appropriate place, obeying the 3.3 chapter notes
2. Lock the front wheels (pos.1) and remove protection near front wheels
3. Adjust the side table to the left side of the tub
4. Make sure the power of the net fits the power noted on the plate of the machine, and ground machine.
5. Plug the machine to the electrical net (pos.U)
6. Turn on the main switch (pos.2)
7. Lift the baskets and check for undisturbed rolling of the drainer (pos.3) on the length edges of the tub and side table

8. Put the drainer on the side table and low the baskets on lower position

9. Check the inside switches of the oil and water heaters work correctly by turning the thermostat (pos.5. and.6)

10. Check that the oil spout tap is closed (pos.7)

## **CAUTION!**



**THE ELECTRIC INSTALLER SHOULD BE TRAINED FOR SUCH WORK, AND IT IS CONSIDERED HE HAS KNOWLEDGE NEEDED (PROFESSIONAL AND REGULATORY) TO OBTAIN PROFESSIONAL RULES.**

The machine should be connected to electric net of the bakery according to the standards and rules given in the manual: the machine is connected using IEC 57 cable and CEE plug with as many poles as noted on the plate. The earthing installation should be present.

The earthing must not be done by water or gas pipes or other special metal parts. Electric cable must not be nearby warm or movable parts of the machine. The cable must not prevent transportation and moving inside the bakery.

### **3.5. STARTING AND OPERATING THE MACHINE**

Pour palm oil (see page 13 for quantity) into the tub (pos.8) and 1 l of water into the water container with the heater (pos.9).

Close the chamber door (pos 10) and tub lid (pos.11).

Regulate oil thermostat (pos.5) to the required temperature (170°-190°C) and fermentation chamber (pos.6) to medium (35-40°C). When the chamber has moistened, put in the tray and doughnuts trolley. Fermenting takes 30 minutes.

Lift the tub lid and pull out a tray (pos.13) and put it on a frame (pos.4) and push it to the edge. Empty the doughnuts and pull the tray back. After 3 minutes of frying lift the frame with the baskets by pulling the handle (pos.3) to the right and by rotating the lever (pos.14) turn the doughnuts to the other side. Pull the handle to the left to lower the baskets into the oil.

When the doughnuts are fried, lift the baskets and by pulling the handles (pos.15 and 16) move the basket frame to the left, over the

performed draining tin. Rotate the baskets and empty the doughnuts.  
Pull the basket frame over the oil tub and lower the basket into the oil. Repeat with the next tray.



**USE THE PROTECTIVE SUIT  
AND GLOVES WHEN  
OPERATING THE FRYER  
BECAUSE OF THE POSSIBLE  
CONTACT WITH THE  
HEATED PARTS OF THE  
MACHINE!**

## 4. MAINTENANCE NOTES

### 4. 1. Foreword

"Regular maintenance „means the sum of all the operations that require no special knowledge to be done safely. All in the 4.2, 4.3 and 4.4 passages should be considered regular maintenance.

**IMPORTANT!**



**Prior to the machine cleaning or electrical closet opening that contains the main socket (pos.20), the heater closet (pos.22) or back lid (pos.23) it is necessary to turn of the main switch (pos.4) and pull out the plug (pos.U) out of the electricity. When cleaning the tub (pos.12) or the water container (pos.13) check the heater temperature. When removing the heater box, is expressly prohibited by this part immersed in water. The machine is to be cleaned by dry or damp cloth. The machine is not to be cleaned with water jet.**

The operator can take the regular maintenance described in 4.2, 4.3 and 4.4 provided he obeys the manual strictly and provided it is said so in the manual.

All the other interventions should be considered "extraordinary maintenance" that should be done by trained staff, or when stated in the manual, the producer authorized staff.

Each page of the manual has a telephone number listed where the questions could be answered.

### 4.2. Oil refilling

Oil level should be controlled daily. The refill should be done as needed, so the minimum level is not below the shaft height of the baskets (pos.24) in the lower position, and is indicated in the bath minimum (MIN) and maximum (MAX) level of oil.

### 4.3. Oil exchange

It is advisable to replace old oil every 350-400 firing, because of loss of oil properties are not getting the quality baked donuts.

Before exchanging oil, the temperature should be under 50°C, which is checked by observing

the oil thermostat (pos.8), when it is turned on and off at that temperature approximately. Lift the baskets out of the oil to drain. Put the appropriate hose on the oil tap (pos.11), remove padlock from it, put a container underneath and open the tap. When the oil drains, close the tap, and return padlock to oil tap.

Turn off the main switch; pull out the plug out of electric net, and the oil heater (pos.25) out of socket under the main switch closet.

**Take the oil heater closet with the heaters out of the tub and is expressly forbidden this part immersed in water..** Clean the tub and the heaters of any sediment.

Place the heaters to the original positions and put the new oil into the tub up to the basket shaft height level.

#### 4.4. Water refilling

Water level into the water container should be checked daily (pos.13) and refilled when needed.

#### 4.5. Possible operating problems

The fault	Possible cause	The solution
The machine won't start	No electricity	Wait for the electricity or start the generator (if there is one)
	The machine is not connected to the net	Plug the electrical cable into the net
	The fuse is off	Turn the fuse to the position 1
	Broken fuse	Change the fuse
	Broken plug	Change the plug
The oil won't heat or is not heated enough	The heater doesn't work	Change the heater(empty the oil and remove the baskets)
	Broken thermostat	Check the thermostat and change if needed
	Broken safety thermostat	Check the thermostat and change if needed
Poor fermenting/ broken steam generator	Water heater doesn't work	Change the heater(empty the water and remove the water container)
	Broken thermostat	Check the thermostat and change if needed
	Broken safety thermostat	Check the thermostat and change if needed
Unevenly frayed doughnuts	One or more heaters broken	Change the broken heater (empty the oil and remove the baskets)

## **5. INGREDIENTS SAFETY AND HYGIENIC NOTES**

### **5.1. General**

#### **Danger analysis in 5.2, 5.3, 5.4 and 5.5 is based on**

- 1) knowing the condition of using the machine described in using manual
- 2) assuming the machine is mint for bakery, including frying and baking
- 3) assuming the operators is familiar with the risks for the working space
- 4) assuming that unemployed persons and other do not have any access to the working space.

### **5.2. Mechanical dangers and risks**

According to EU directions nr.98/37/CEE we list the list zones, description and measures to be taken in order to minimize the risk.

#### **5.2.1. Danger zone 1**

The risk of getting jammed, pulling or squeezing of upper limbs between the tub and tub lift.

Carefully lift the lid so that it does not slide and hurt the operator.

#### **5.2.2. Danger zone 2**

The risk of getting jammed, smashing or pulling of all the limbs between the chamber door and the housing.

Carefully open and close the chamber door so that it does not hurt the operator.

#### **5.2.3. Danger zone 3**

The risk of getting jammed, pulling or squeezing of all the limbs when pulling the drainer under the baskets and placing on the side table.

Carefully pull the drainer so it does not slide from the trails and cross the edge and hurt the operator.

### 5.3. High temperature dangers

The danger is present each time the machine operates and after it is turned off (before it cools).

When operating the machine the protective suit and gloves should be used because of the possibility of contact with the heated parts.

### 5.4. Fire danger

The danger of fire is present if the oil level is below the minimum indicated in oil tub.

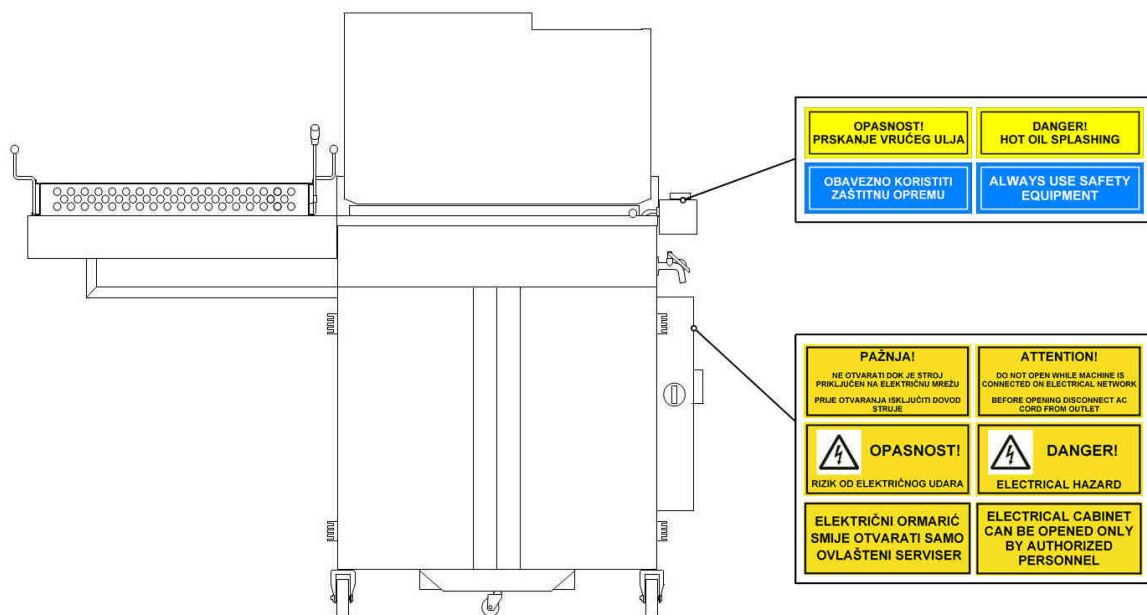
When operating the machine it is necessary to check oil level in oil tub after 8-10 fry.

### 5.5. Electrical hazard

All the electric parts, including signal parts are projected and made in accordance to the safety standards and technical specifications of EN 60204-1 standard.

### 5.6. Safety marks

There are following safety labels placed on the fryer, as shown on the picture.



**OPASNOST!  
PRSKANJE VRUĆEG ULJA**

**DANGER!  
HOT OIL SPLASHING**

**OBAVEZNO KORISTITI  
ZAŠTITNU OPREMU**

**ALWAYS USE SAFETY  
EQUIPMENT**

**PAŽNJA!**

**NE OTVARATI DOK JE STROJ  
PRIKLJUČEN NA ELEKTRIČNU MREŽU  
PRIJE OTVARANJA ISKLJUČITI DOVOD  
STRUJE**

**ATTENTION!**  
**DO NOT OPEN WHILE MACHINE IS  
CONNECTED ON ELECTRICAL NETWORK  
BEFORE OPENING DISCONNECT AC  
CORD FROM OUTLET**



**OPASNOST!**

**RIZIK OD ELEKTRIČNOG UDARA**



**DANGER!**

**ELECTRICAL HAZARD**

**ELEKTRIČNI ORMARIĆ  
SMIJE OTVARATI SAMO  
OVLAŠTENI SERVISER**

**ELECTRICAL CABINET  
CAN BE OPENED ONLY  
BY AUTHORIZED  
PERSONNEL**

Make sure the colors and letters are visible. At any sign of the damaging they should be replaced as soon as possible. New ones can be purchased at the producer's.

## 5.7. Ingredients hygienic conditions

The machine described in this manual should be considered mint for the food processing according to the law, on the day of the delivery by the producer; the validity of the fryer will be considered only under the condition that it is cleaned daily, kept and controlled in good condition, if every damaged, worn out and part that does not meet the safety and hygienic standard in contact with the food (dough, water, flour and so on) is replaced immediately.

The producer refuses any responsibility for the inappropriate work caused by impurity and poor maintenance of any part of the machine. It is advised to clean the flour and/or parts of the dough placed underneath and/or around the machine.



**Descriptions, displays, weighs and measures given in this publications are not obligatory. The manufacturer keeps the right of tehcnical improvements for any reason (constructive or commercial) without prior notice any time without the manual being subject to change, provided the basic characteristics of the described type of the fryer is unchanged.**



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