

# **Instructions Manual** GAS FRYER

Model

FSG-46<sub>GLP</sub>

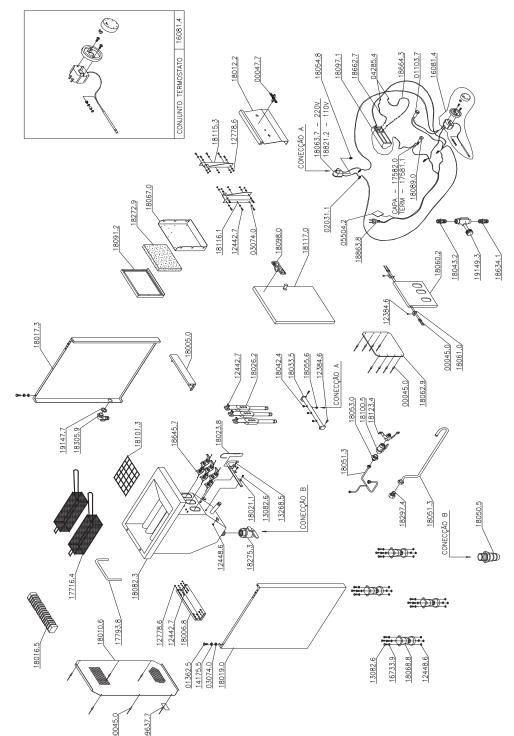
21512.0 - JULY/2003

## **INDEX**

1 INTRODUCTION011.1 Receipt of the product011.2 Main Precaution011.3 Main Components021.4 Techinical Data03
2 INSTALLATION042.1 Place of Installation042.2 Gas Circuit042.3 Electric Circuit04
<b>3 PRE OPERATION</b> 043.1 Cleaning the Tank043.2 Loading the Tank05
4 OPERATION054.1 Starting Operation054.2 Finishing Operation06
<b>5 FEEDING</b>
6 CLEANING066.1 Cleaning (Discharging the Oil)066.2 Cleaning (Keeping the Oil)066.3 Procedure to change sauted water06
7 TROUBLESHOOTING
8 ELECTRICAL DIAGRAM 07
9 EXPLODED DRAWING 08
<b>10 SPARE PARTS LIST</b>

## 10 Spare Parts List FSG-46 110/220 Volts

CODIGO	DESCRICAO DO COMPONENTE	UM	CODIGO	DESCRICAO DO COMPONENTE	UM
00045.0	REBITE PRESSAO AD-423-S	MI	18050.5	ADAPTADOR DA MANGUEIRA	PC
00047.7	LOGOTIPO SKYMSEN PQ.ADES.	DE	18051.3	CJ TUBO PRINCIPAL COBRE	PC
01103.7	LAMP.LP-11C 110/220V VERM	PC	18053.0	CONEXAO SAIDA DA VALVULA	PC
01362.5	PFS M4x10 DIN 933 ZB	CE	18054.8	CONEXAO ENTRADA SOLENOIDE	PC
02031.1	CAPINHA DE NYLON CN-4472	MI	18055.6	CONEXAO SAIDA SOLENOIDE	PC
03074.0	ARR.L.A4,3 DIN 125 ZB	CE	18060.2	TUBO SAIDA DE GASES	PC
04285.4	TERM. PRE-ISOL.AN-2435	MI	18061.0	PERFIL DE FIXACAO	PC
05504.2	ETIQUETA ATENCAO	CE	18062.9	FECHAMENTO DO TUBO GASES	PC
09637.7	ETIQ.IDENTIF.MOTOR/RESIST	PC	18821.2	VALV.SOLEN.U8262C002 220V	PC
12384.6	PFS M6x12 DIN 933 INOX	CE	18063.7	VALV.SOLEN.U8262C002 220V	PC
12442.7	ARR.L.A6,4 DIN 125 INOX	CE	18067.0	CHAPA DE PROTECAO	PC
12448.6	PCA M6 DIN 934 INOX	CE	18068.8	PE 7/8"W ANTI-DERRAPANTE	PC
13082.6	PFS M6x20 DIN 933 INOX	CE	18082.3	CS TANQUE	PC
13768.5	PFS B.4,2x13 DIN 7971 In	CE	18089.0	INTER.PUSH BOTTON IPU	PC
14175.5	PCA M4 DIN 934 ZB	CE	18091.2	ALOJAMENTO DO ISOLANTE	PC
16081.4	CONJ.TERMOST.COTHERM	PC	18097.1	USINA DE IGNICAO	PC
16733.9	ARR.P.B6 DIN 127 INOX	CE	18098.0	LOGOTIPO FSG-46	DE
17581.1	TERM.POSITIV LOCK 0,5A1,5	MI	18100.5	VALVULA ESFERA PN 20 1/2"	PC
17582.0	CAPA P/TERMINAL FEMEA	MI	18101.3	GRADE	PC
17716.4	CESTO	PC	18115.3	CS LATERAL D SUP.COMAND0	PC
17793.8	SUPORTE DOS CESTOS	PC	18116.1	CS LATERAL E SUP.COMAND0	PC
18005.0	CHAPA DIANTEIRA	PC	18117.0	CS PORTA FRONTAL	PC
18006.8	CHAPA TRASEIRA	PC	18123.4	CS SUPORTE VALVULA C/ZINC	PC
18010.6	FECHAMENTO TRASEIRO	PC	18272.9	ISOLANTE TERMICO DOS EQU.	PC
18012.2	SUPORTE DO COMANDO	PC	18275.3	VALVULA ESFERA 1"	PC
18016.5	SAIDA DE CALOR	PC	18297.4	CONEXAO TC 3/8x1/2 BSP(I)	PC
18017.3	CS LATERAL DIREITA	PC	18305.9	REGISTRO ESF.90G.1/2NPT(E	PC
18019.0	CS LATERAL ESQUERDA	PC	18634.1	UNIAO TC 1/4"x1/8"NPT	PC
18021.1	QUEIMADOR CHAMA PILOTO	PC	18645.7	CS DISPERSOR DE CALOR	PC
18023.8	VELA IGNICAO SE-20-10-0-1	PC	18662.7	FIO LIG.TERM./ELETR.1200	PC
18026.2	CS QUEIMADOR	PC	18664.3	FIO LIG.VELA 1500mm	PC
18033.5	CS TUBO DISTR.QUEIMADOR	PC	18863.8	CB.PAR.2x0,75mm2C/PGRE 2P	PC
18042.4	TERMINAL DA DISTRIBUICAO	PC	19147.7	ARRUELA DISTANCIADORA	PC
18043.2	TERMINAL DA CHAMA PILOTO	PC	19149.3	TORNEIRA	PC



#### NOTICE TO OWNERS AND OPERATORS

The FSG-46 Gas Fryer is designed to fry food products safely and efficiently. Unless the operator is properly trained and supervised, however, there is the possibility of a serious injury. It is the responsability of the owner to assure that this machine is used properly and safely, strictly following the instructions contained in this Manual and any requirements of local law.

#### **1 INTRODUCTION**

#### 1.1 Receipt of the Product

It is recommended to handle product with care and inspect it on its arrival for detecting defect parts, missing parts, liquid infiltration or others substances. If detected any of the above please notify carrier and/or Distribuitor.

#### **1.2 Main Precautions**

The Gas Fryer is simple to operate, however it must be used and handled with care. Therefore read all the instructions contained in this manual, as follows:

FOR commercial use ONLY by qualified operators.

BEFORE cleaning and maintenance disconnect machine from power source and put off fire.

NEVER let temperature pass over 180°C as this could burn the oil forming substances prejudicial to the healthy.

NEVER light machine up without water and oil.

NEVER use tools not belonging to machine to help operation.

DO NOT put your hands inside machine during operation.

NEVER touch the oil during operation.

NEVER connect power source with wet hands or wet clothes.

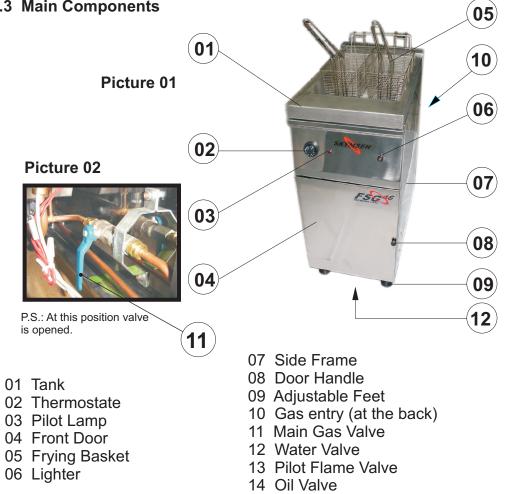
NEVER spray water or other liquid substances directly at power switch or any other electrical components.

ALWAYS install equipment in working area with adequate light and space away from CHILDREN and VISITORS.

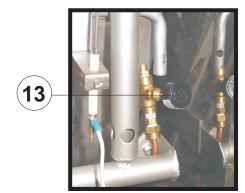
CONSTANTLY keep your working area clean and dry to prevent it from becoming slippery. NEVER operate without all warning labels attached and owner/operator manual available to operator.

NEVER leave unattended while operating.

#### **1.3 Main Components**



#### Picture 03



#### Picture 04

(14)

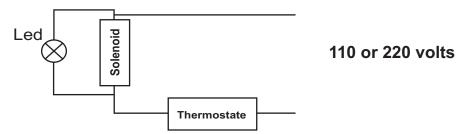


### **7 TROUBLESHOOTING**

#### Table - 02

Problems	Causes	Solutions
* Machine does not switch on.	* Power supply lack	* Plug in machine . Check if there is power in the building.
	* Pilot flame does not light.	* Check if main gas valve is opened.
		<ul> <li>Check if gas barrel is empty.</li> </ul>
		* Check if pilot flame regulator is on.
	* Ligther in not working.	* Check if cable is connected to the lighter.
		* Check the distance between lighter electrodo and gas exit.
	* Burners are not lighting or are taking too much time to	* Check if thermostate is duely regulated.
	light.	* Regulate pilot flame.
		* Check if solenoid valve wires are connected.
		* Check if gas barrel is full.
	* Water and oil are leaking.	* Check if all valves are well closed.

#### 8 ELECTRICAL DIAGRAM Mod. FSG-46 glp



At this moment oil starts heating up. Pilot Lamp No.03 (Pic.01) is on indicating that oil is being heated. When Pilot Lamp switches off it means oil reached desired temperature. Gas Fryer is now ready to use.

**IMPORTANT:** When oil temperature goes down 20°C thermostate activates automatically lighting Fire Tubes.

#### 4.2 Finishing operation

-Place thermostate knob on "0" position; -Close Main Gas Valve No.11 (Pic.02).

#### **5 FEEDING**

When oil has reached the desired temperature (approximate time: 20 min.) put food product inside the tank No.01 (Pic.01) and leave it there for as much time as required to fry each product.

**CAUTION:** Introduce food product into hot oil gradually, moving the frying basket up and down until food product is hot enough to be submersed into oil, avoiding bubbling. Usually bubbling occurs when cold food gets in contact with very hot oil.

#### **6 CLEANING**

**IMPORTANT**: Always disconnect machine from power source before cleaning. Be sure water and oil are cool before letting them out.

#### 6.1Cleaning (Discharging the oil)

-Disconnect machine from power supply;

-Open Water Valve No.12 (Pic.01) located beneath the machine and let all water and oil out until tank is completely empty.

#### 6.2Cleaning (Keeping the oil)

-Disconnect machine from power supply and let water and oil cool down;

-Open front door, connect pipe that comes with the machine to the Oil Valve No.14 (Pic.04) and open it until oil is completely out, then close Oil Valve. (Place a container under the pipe to collect the oil);

-Open Water Valve No.12 (Pic.02) and let water out completely.

After performing either of the above do as described in section 3.1 in this manual.

## 6.3 Procedure to change Salted Water

**IMPORTANT:** Salted Water must be changed at every 5 days.

-Before changing salted water disconnect machine from power supply and wait for it to cool down.

-Open Water Valve No.12 (Pic.01) and let water out. Pay attention to the time that oil starts to come out, at this point close the Water Valve;

-To put in new salted water (12 liters) just pour it into the tank. Water will go down to the bottom of the tank by itself. Remmember: oil must be COOL;

-Complete the oil up to its level.

#### 1.4 Technical Data

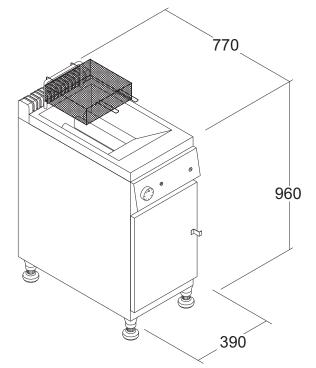
Tank						
Model	Oil (liters)	Water (liters)	Salt (Kg)	Water Valve	Oil Valve	
FSG-46 glp	34	12	1	1 BSP	¾ BSP	

Technical Data						
Model	Number of Baskets		Cooking Area ( mm )	Rating ( Kcal/h) ( BTU/h)	Voltage (V)	Net /Gross Weight (Kg)
FSG-46 glp	02	03	400X330	11500 46.000	110 or 220	45/70

Gas Feeding					
Model	Consumption (Kg/h)	Gas Type			
FSG-46 glp	1	GLP Low Pressure			

## **Basket Size**

Height: 123mm Width: 150mm Depth: 360mm



#### **2 INSTALLATION**

CAUTION: Use qualified technician and electrician for installation.

#### 2.1 Place of installation

Gas Fryer must be placed below an exhaustor in order to eliminate steam formed during frying operation.

Under the Fryer there must be a drain for water for cleaning. It is not necessary to have it fixed directly on the Fryer.

Leave a space between the Fryer and the wall and/or other equipments, specially at the back. At the back leave a space fire of 200mm minimum.

Gas Fryer must be installed on a leveled, non-skid work surface.

CAUTION: Never move the Fryer around when it is full loaded.

#### 2.2 Gas Circuit

Fryer operates with low pressure system and GLP gas.

It is necessary for the GAS FRYER at least 2 (two) P 13 barrels, or a system that supplies gas at a minimum rate of 2kg/h.

Before connecting machine to the gas system check if Main Gas Valve No.11 located inside of machine (Pic.02) is closed. It is accessible by the front door.

CAUTION: Keep Main Gas Valve No.11 (Pic.02) closed before iniciating operation.

#### 2.3 Electric Circuit

Power supply is necessary for the solenoid valve function. It controls the lighter of the burners and generate lightning for first flame.

It is necessary a two pin single phase wall socket for connecting the plug.

Power supply voltage must be in accordance with the machine specification: 110V or 220V, see nameplate for correct voltage.

#### **3 PRE OPERATION**

**CAUTION:** Before using the machine, check if all above Installation Intructions have been done/respected. Never try to move Fryer around when it is loaded with oil. Hot oil could cause serious burnings.

#### 3.1 Cleaning the tank

It is recommended to clean the tank before first use, as well as each time oil is changed. To clean it safely before first use please follow the below instructions.

-Check the electrical and gas installations;

-Close Oil Valve No. 14 (Pic.04) and Water Valve No. 12 (Pic.01);

-Put water in the tank (approximately 46 liters);

-To start machine follow the procedures of section 4.1 Starting Operation in this manual;

-Let water boiling for 1 hour. Caution: Never leave machine unattended during boiling. If water overflows place thermostate at "0" position to put burners off.

-After 1 hour turn machine off following the procedures of section 4.2 Finishing Operation in this manual and wait for water to cool down or add cool water to the tank to accelerate cooling.

-Open Water Valve (1"BSP) No. 12 (Pic.01) and let water out into a container or directly in a drain;

-Close the Water Valve and rinse tank. Open Water Valve and let water out once again. Repeat this procedure until tank is completely clean. Dry tank with a clean and dry cloth; -Clean body of the machine with a dump clean cloth and wipe dry.

#### 3.2 Loading the tank

Before loading the tank check if it is clean.

See quantities of oil, water and salt needed in section 1.4 Technical Data / Tank in this manual.

-Check if machine is turned off and Main Gas Valve No.11 is closed (Pic.02);

-Close Oil Valve No.14 (Pic.04) and Water Valve No.12 (Pic.01);

-Mix salt to the water in a separate container to dissolve the salt and then pour it into the tank;

-Complete with water up to Oil Valve level No.14 (3/4 tube located inside of the tank), quantity of water should be that indicated in section 1.4 Technical Data tank;

-Put 34 liters of oil in the tank;

-Wait approximately 20 minutes for the water-salt solution to separate from oil.

#### **4 OPERATION**

#### 4.1 Starting operation

**CAUTION:** Only start operation when tank is loaded with water and oil, or with only water if cleaning is required.

-Check the electrical and gas installations;

-Check if grid for retention of residuos is placed onto Fire Tubes inside of the tank;

-Check if thermostate is on "0" position;

-Open frontal door to have access to the burners;

-Open Main Gas Valve No.11 (Pic.02);

-Press Lighter No.06 (Pic.01) to put on pilot flame;

-Check if pilot flame is on;

-There is a valve No.13 (Pic.03) for regulating the pilot flame (pilot flame is regulated at the factory. However if regulation is needed open the valve No.13 until pilot flame reaches the edge of the Fire Tubes lighting them on).

-Place thermostate knob at the desired temperature; (for cleaning place it at 100°C); -Check if all three Fire Tubes are on.

**CAUTION:** NEVER let temperature pass over 180°C as this could burn the oil forming substances prejudicial to the healthy.