

EHFY491 Electric Pressure Fryer(with pump)

Electric Pressure Fryer

# **INSTRUCTION MANUAL**

Read this manual carefully prior to use.

Technology is subject to change without notice.

## Character and usage

The series of EHF DY535 American style pressure fryer that my plant produced absorb the advanced technique from abroad and learn the production process of western chicken frying and traditional Chinese style chicken frying. . It has the characteristics of stainless steel material, use the electronics to adjust time, control temperature and expel the air automatically; it is used to fry chicken, fish, sparerib, mutton, and all kinds of meat and vegetable. This machine is applicable for hotel, guest houses, restaurants, factories, dining room. It has the advantage of low energy consume, free from pollution, convenient usage and high efficiency. It is indeed the newest food machinery equipment in domestic. The machine the oil filter can filter the dirty of the oil efficiently; it is useful to improve the quality of the fried food.

### I. Main Technical Parameters

1. Rated Voltage: ~3N380V
2. Rated Frequency: 50Hz
3. Rated Input Power: 13.5Kw
4. Rated Working Pressure: 0.085MPa
5. Output: 25kg/h
6. Range of Temperature Control: 50-200°C (adjustable, the highest temperature you set can be 200°C)
7. Electronic Timing: 0-90min (adjustable)
8. Oil Capacity of the Fry: 25L
9. Gross Weight: 155kg
10. Overall Dimensions: 960x460x1230mm

### II. Installation and Debugging

1. The machine shall be placed at a dry clean and ventilated place. At operation, cushion the movable castor horizontally, make it balanced, and fasten it. The relative humidity of indoor environment shouldn't be too high, otherwise it will decrease the electricity insulation. When necessary, there should be an exhaust device to be installed.

This machine adopts ~3N400V power supply. When connection, please connect the neutral conductor (N) carefully, otherwise the machine will be damaged. There shall be a special purpose cutoff installed on the input line front end, and its accessional facilities shall conform to the requirements of the electricity capacity of the machine and ask the eligible technician to install.

2. The grounding terminal of the machine shall be grounded reliably, its section  $\geq 2.5$  mm<sup>2</sup>. If many machines are working at the same time, an equipotential device should be equipped between each set.
3. During the conveyance of the machine, the vibration will cause the loose or removal of the spare parts, so when installation and debugging, please tighten each loosening part.
4. Pour oil before heating, and its oil level can't be lower or higher than the oil level line. It is forbidden to heat if there is no oil in the boiler, otherwise the electro thermal pipe will be burned out.
5. The temperature is set between 150°C and 180°C, the user can set it depending on the production, timing set, cold oil to heat for 20 to 30 min, hot oil to fry 10 to 15 min, before frying the food, the oil temperature must be over 150°C.
6. When cold oil heating, you'd better not lid the cover. Mix up manually the oil continuously to heat it fast and well-proportioned.
7. When its delivery, the pressure of the automatic overflow valve is usually set at 0.07MPa to 0.08MPa, if the indication of the pressure gauge exceeds 0.09MPa and continues to increase, discharge the air manually, and unbolt moderately the air-release valve to discharge the air, making the air pressure keep at 0.08MPa to 0.09MPa.

### III. Operation Principle and Process

1. Preparation before starting the machine and the process for frying

Before you turn on the ON/OFF switch, you must open the fryer lid to pour at least 25L oil into the pot. (When you pouring the oil, looking at the oil line, to make sure it is suitable to be higher 10mm than the heaters). Be careful, before you pouring the oil into the pot, you should open the door at the bottom side to check the oil drain valve and oil filter valve to make sure that it is in be closed. After checking this, close the door at the bottom to connect the power to start the machine. Open the power supply switch, the PV(°C.) on the controlling panel shows the oil temperature in the pot.

SV shows the temperature you set. The four figure that showing in the right side is the time for minutes and seconds. In ordinary use of the machine , the time and the temperature is set just according to the users. The machine is equipped with 1-0 ten store key , 10 store key in total, it is used for the frying of ten different foods. The steps of setting is as follows: first, press the key of ①, then press the temperature key, then press the ▲▼UP DOWN key to set the temperature you want( attention: the best temperature for frying chicken is 165°C.). Second, press the Time key, now the timing display is shining now, then press the ▲▼UP DOWN key to set the time, the time you set is the minutes( the time for frying chicken is 10 min), the last two figure is second. When the minutes is set ok, press the TEMPE to set the second, second can be set as 00.Then you press the ① for at least 10 seconds, at this time, the TEMPE key will shining for three times, the loosen the key , then it is ok for the setting of the 1 key, the setting steps of 2-0 key is the same like this.

After setting, it is the time for you to fry the foods. Press the **COOK** key , the electric circuit is connected now, the temperature is increasing normally to cook the oil in the pot. You'd better not closed the fryer lid when the temperature is not up tp the working temperature. While preheating, use the handle of the basket to mix the oil to make sure it is heated equally. After preheating, (means up to the setting temperature), press the ON/OFF key, now you can put the prepared food into the basket( the machine is equipped with one basket), using the handle of the basket to lift the basket to the fry pot, then take the handle of the basket away and closed the fryer lid, make the pothook ok, then tighten the threaded rod. Then press the ON/OFF key, the control display is working now. The temperature is arising and the time display is shining, and it begin to timing now. As the temperature is up to the setting temperature, the heater in the pot stops heating. When the temperature is lower than the setting temperature, the heater will automatically heat again. As the time going to "0", the Exhaust valve will be automatically open to exhaust. The process of frying is ok. As the steam in the pot is exhausting ok, means the pressure gauge shows"0", you can loosen the threaded rod. The press the beam, using the handle of the basket to lift the basket, waiting for few minutes you can take the basket away from the fry pot.

## 2. Fastening method of opening and closing the cover:

Lay down the lid, trying our best to press the down plank to make sure the lid is closed well. Open the hook lock to ensure that it is fasten well with the frontage of the pot. Spinning the spindle in the clockwise direction, press hardly to make sure the make sure that the red or the black ball is in the same direction with the hook lock. Loosen the spindle in the counterclockwise direction when you open the lid, press the (A) and try to open the hooklock..

## 3. Preheating and the treatment of raw oil

The universal vegetable oils (except peanut oil) can't be edible until fried well, otherwise there will be a smell of raw oil, so you should preheat the oil each time you pour

new oil and you pour oil (cold) for the first time for frying. The method: temperature 140°C to 160°C, time 10-20 min (it depends), making the raw oil in the boiler bubble up. Additionally, for this preheating and the treatment of raw oil, there is no food to fry in the boiler, that is, there is no vapor, no pressure indication for the pressure gauge, so please pay special attention to the heating time and temperature, it is best for you to open the cover..

#### 4. Operation process of cooking and frying

After heated as the above methods, reset the working temperature and time, put the prepared food in the frying basket, put the frying basket in the fry pot with a special “handle” fast and balanced, lid the cover quickly, make the cover balanced, fasten the fastening screws, screw them with proper strength, and confirm the air-release valve is closed. At this moment, the pressure indication of the pressure gauge shall increase slowly. When the pressure reaches 0.07Mpa to 0.08Mpa, the overflow valve starts to discharge the air automatically, making the air pressure keep invariant. When the temperature reaches the invariant value, the time reaches the set value, it will release the air automatically.. When the air in the boiler is discharged completely and the pressure gauge indicates “0”, loosen the fastening screw, press down the crossbeam with hand, loosen the crossbeam hook, and open the cover, otherwise there will be a danger. When opening the cover, the operator should be stand side face, in case the hot air shall emit to scald his wrist. The operator must have a good knowledge of how to operate the machine to ensure the security. The workers are forbidden to leave the working scene, they should supervise the production process, if any abnormal situation, stop the machine immediately, find out the cause, and operate again after the troubles are got rid of.

#### 5. Method of oil filtering

Open the fryer lid, taking the basket out of the pot. Use a knife or some other tools, like the handle of the basket to remove the residue left to the inside of the pot. Open the vent valve, pouring the oil into the oil pot. If the oil drainage hole is not unobstructed or it is jammed, you can use brush or some other tools to clean up the oil drainage hole to avoid jamming. (Attention, do not use some metal tools that are too hard). When filtering the oil, using the brush to clean up the residue in the pot and fully filtering the oil in the pot. Close the lid of the machine to avoid the splash of the oil and turn off the vent valve. As soon as you make the oil strainer, fabric and connector ok, you can open the Filter Valve and press the power switch down side to start the oil pump, the oil is pullback to the pot of the machine. At this time, the residue in the oil is left in the oil cylinder. After filtering the oil, turning off the Filter Valve, then to make the power switch (functional switch) to the position “0”. Remove the connector for the oil filtering, cleaning up the oil cylinder and change the oil filter bag.

### IV. Safety Points for Attention

1. In order to protect people from hurt, the machine can not be used if a grounding device is

not equipped. (use 2.5mm<sup>2</sup> cuprum wire to contact with the ground bolt)

2. Don't start to heat when there is no oil in frypot or the oil level lower than element, otherwise the elements will be burn. Please don't wash the heating element by cool water until they are cooling, or it will explode
3. Latch the lid before heating. Don't operate the securing hook and draining the oil. Before you open the fryer lid, to make sure there is no pressure in the frypot, that means the pressure gauge shows "0". After 30 second, you can open the fryer lid to avoid explosion for the pressure.
4. In order to keep the good sealing between fryer pot and fryer lid, do not use handle or some other hard tools to strike the fryer lid and mouth of fryer.
5. The rubber seal of the fryer lid can not be dismantled of yourself. For it may effect the sealing. While it is not working, you should close the fryer lid, but not too tight to avoid the aging of the seals.
6. You should cut off the power if the machine is not working in order to avoid explosion for the wrong operation.

## V. Maintenance and Upkeep of the Machine

1. Clean the overflow valve twice weekly, screw the screw lid, and clean the gravity block, making it jump freely and open and close flexibly. Check the general electricity and screws of power line, and joints monthly. If any loose, fasten them to make them contact well and control sensitively.
2. Clean the smear away from the electro thermal pipe in the boiler and cabinet after daily work is over to keep clean and sanitary and enhance the use life span of the machine.
3. After a relatively long time use, the rubber gasket shall be replaced in time if it is found aging and ineffective. Loosen the glue bar fastening screws of four sides on the cover, take out the glue bar from the groove slowly, put new sealing rings into the groove, and fasten the screws.
4. The machine is equipped with overheating protector. If the temperature controller is out of work and the oil temperature is up to 250°C, temperature limiter can cut off the heating power to make sure of the safe. Operator should check the reason for overheat and try to get rid of it. If needed, you should press the reset key in the "temperature limiter" to restart the machine.

## TROUBLESHOOTING

No	problem	Cause	correction
1	Machine not work	Check the electric power on or off, see the fuse whether burn, miss phase or neutral wire not install well.	Reinstall the wire
2	Not Heating	contactor failure, or the wire loose	Reinstall the contactor or have wires tightened
		Time relay failure	Adjust it or reset it
		Panel not work well or the temperature sensor failure	Adjust it or reset them
3	Heating slowly	Weak or burnt out element	Reset the element(cheked by multi-meter)
		Elements not meet well	Adjust the wire's contact
4	Not controlling temperature automatically	Temperature sensor failure	Mend it or reset it
		Circle not contacting well	Adjust the wire's contact
5	Not timing	Circle not contacting well	Adjust the wire's contact
		Time Controller not work	Reset the controller
6	Operating pressure too high	Deadweight clogged	Turn unit off and allow fryer to cool to release pressure from frypot; remove deadweight and clean ,per cleaning the deadweight valve section
		Exhaust line to stack clogged	Clean Exhaust line to stack
7	Pressure does not build or too low	Pressure gauge failure	Reset it, don't mend it
		Solenoid valve leaking or not closing	Have solenoid valve checked or cleaned
		Lid gasket leaking	Reverse gasket or lid needs adjusted
		Lid open or not latched	Close and latch lid
		Product not fresh or not enough product in fryer	Place proper quantity of fresh product within frypot to generate steam
		Metal shipping spacer not removed from deadweight	Remove shipping spacer