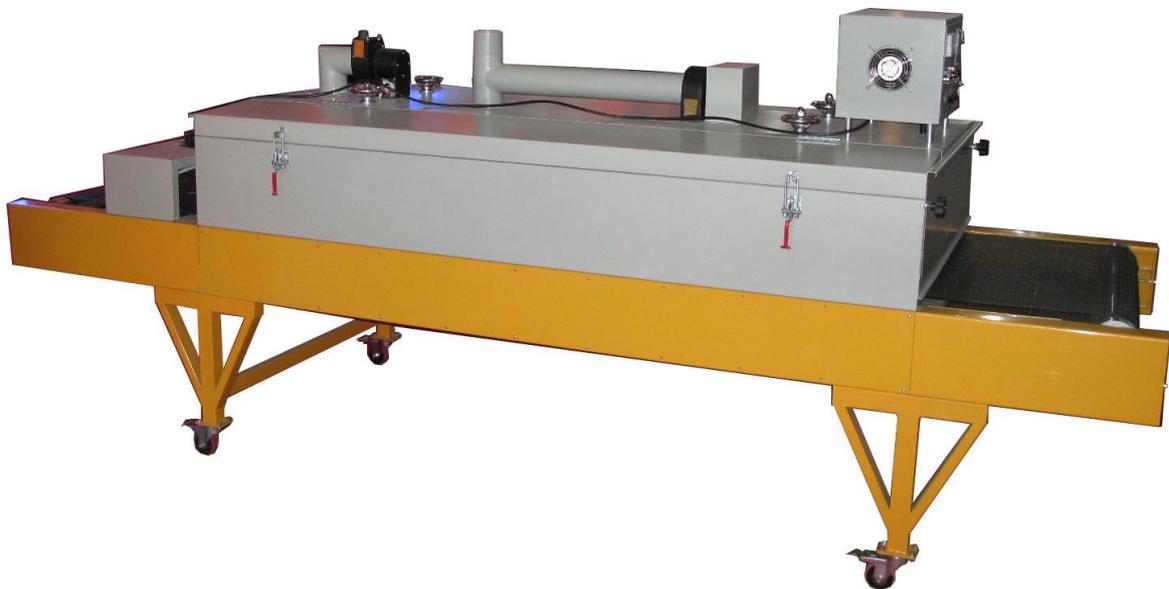




IR Conveyor Tunnel Dryer For thermosetting ink

Instruction Sheet



M-100450XIR

M-100660XIR

M-100750XIR

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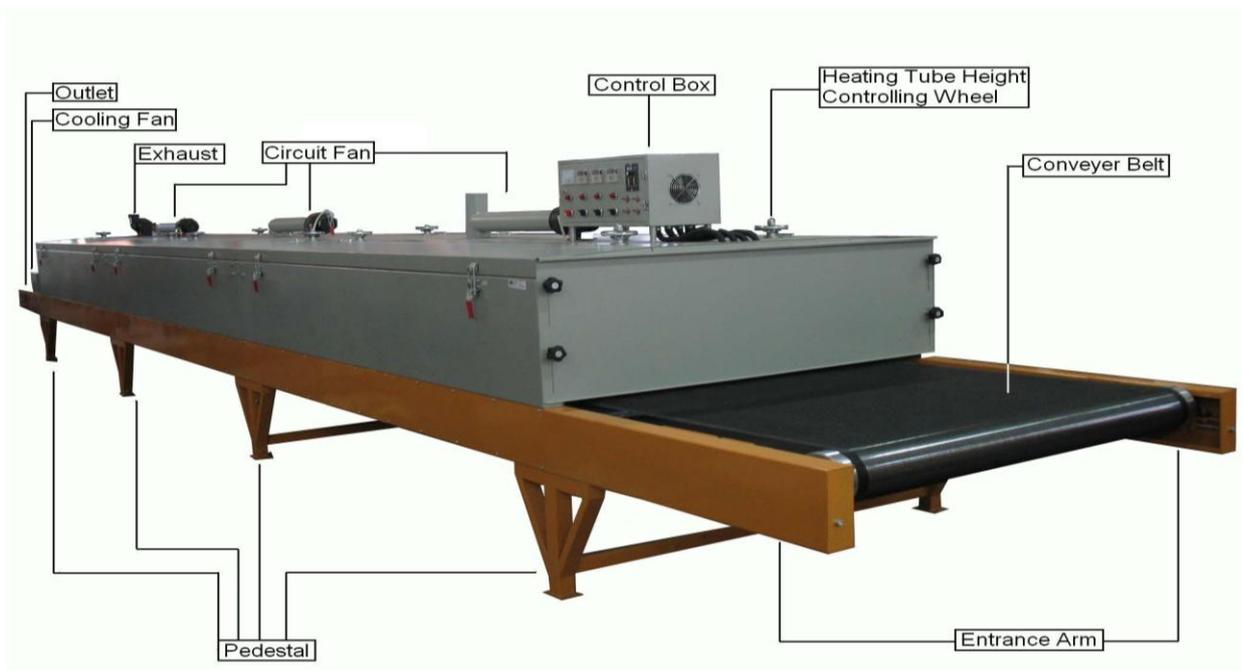
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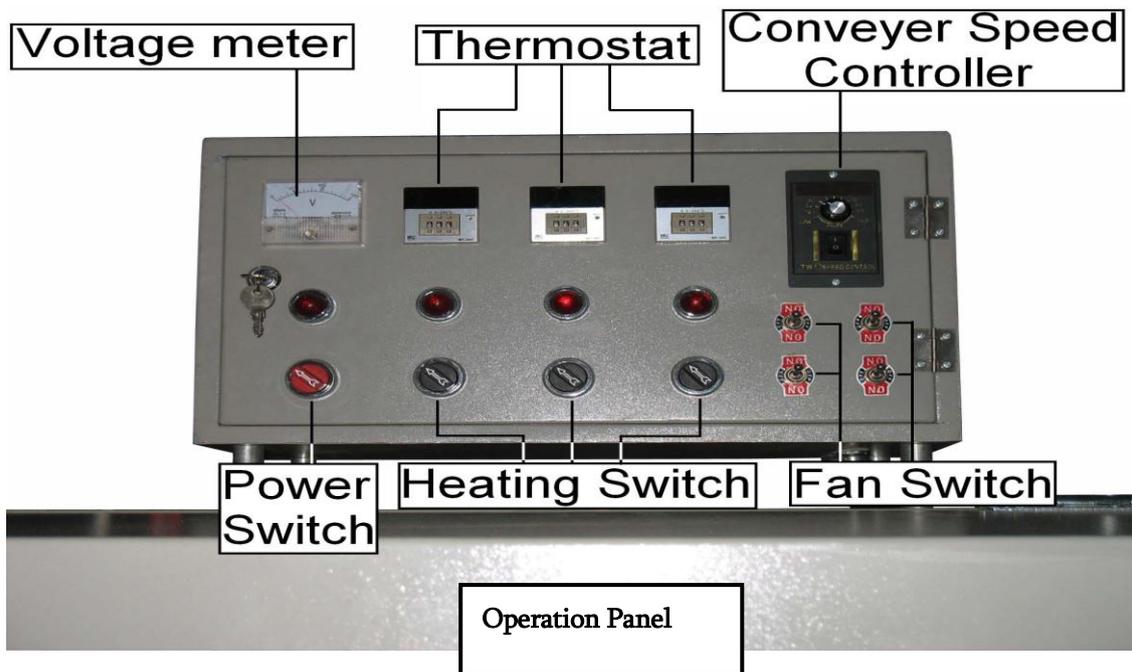
- **Purpose of the Machine:**

Conveyor Tunnel dryer is a high efficient dryer which is heated by Far-infrared and hot wind ,Temperature is controllable . Speed of Teflon coated conveyor can be adjusted step-less, It is suitable for drying printed garment, printed textile ,printed paper and printed film ,etc. It can also use in many occasions of drying or pre-drying printed or unprinted objects .

- **Product Sketch**



Series Conveyor Tunnel Dryer



● Product Feature :

1. Heated with Far-infrared ceramic heating rod and hot wind circuit make printed object dry evenly in the shortest time .Thus save power .
2. Teflon coated conveyor belt can work properly and durable in high temperature .
3. The conveyor is driven by step-less change speed motor .Therefore ,running speed of conveyor can be set arbitrary. Thus ,the dryer can dry different thickness object .
4. Open-able covers on both side of heating chamber .Ceramic heating rod can be easily replaced by simply opening the cover of heating chamber.
5. Heating temperature can be set to any degree between room temperature to 300°C . Tolerance of temperature is in +/-5°C .

● Installation Steps :

1) Pedestals Assembly for 2 or more chamber dryer:

Assemble 2 halves of pedestal which has same corresponding marking together by screwing .





Heating Chamber Assembly :

A/ Put heating chambers on pedestal :

- **For one chambers on pedestal:**
 - a) Put one completed pedestal and one assembled pedestal from Step 1) on a level ground parallel to each other, distance between feet of the 2 pedestal is equal to length of the heating chamber.
 - b) Move the heating chamber onto the 2 pedestals matching corresponding marks on pedestal and chamber. Repeat above steps until all heating chambers are put on pedestals matching to corresponding markings on them.

- **For 2 or more chambers conveyor dryer:**

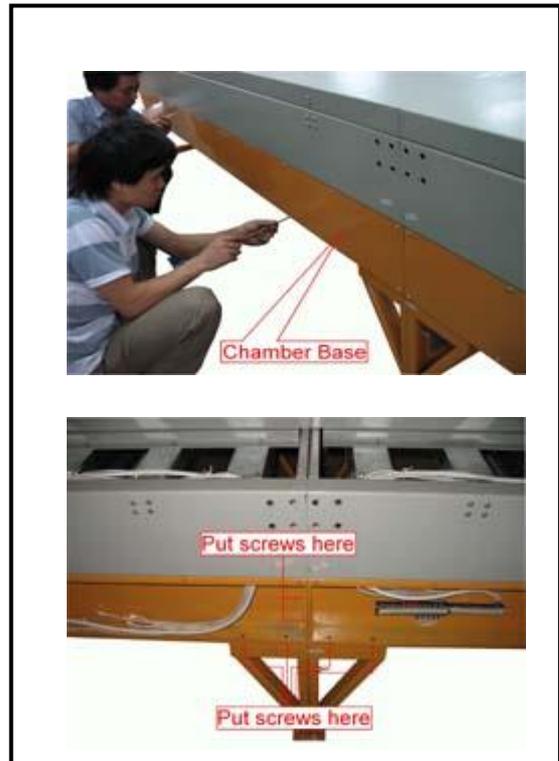
- a) Put one completed pedestal and assembled pedestal from Step 1) on a level ground parallel to each other, distance between feet of the 2 pedestal is equal to length of the heating chamber.

- b) Move the heating chamber onto the 2 pedestals matching corresponding marks on pedestal and chamber.

Repeat above steps until all heating chambers are put on pedestals matching to corresponding markings on them.

B/ Assembly heating chambers :

- a) Unscrew and open the cover of all "Chamber Base".
- b) Put screw through screw holes between "Chamber base" and "Pedestal", "Chamber base" and "Chamber base". Put washer, spring washer and nut on screw. Tighten the screws.





- c) Open the cover of heating chamber.
- d) Unscrew the cover board inside heating chamber.
- e) Put the “Chamber Connecting Bar” inside wall of chamber, matching screw holes in them.
- f) Hold the “Chamber Connecting Bar”, and drive screws on the “Chamber Connecting Bar”. Do not tighten screws.
- g) Tighten all the screws after all screws have been put on position.
- h) Put screw through screw holes between “Chamber walls” (inside chamber wall). Put washer, spring washer

and nut on screw. Do not tighten the screw at this step.

- i) Put screw through screw holes between “Chamber girders” (inside chamber). Put washer and nut on screw. Do not tighten the screw at this step.
- j) Well locate “Chambers” and “Pedestals”, so that they well match to each other.
- k) Tighten all nuts to screws that have been put between “Chambers” and “Pedestals”.



2) Assembly “Outlet Arms” and “Entrance Arms”:

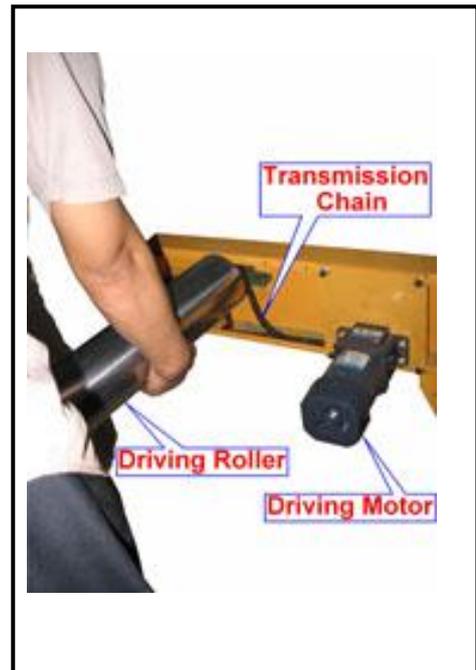


- a) Put one of the “Outlet Arms ”or “Entrance Arms” on pedestal at one side of the “Heating Chamber Unit” Matching with the marking on them .
- b) Put screw through screw holes between “Chamber base” and “Arms”, “Pedestal” and “Arms”. Put washer, spring washer and nut on screw .Do not tighten the screw at this step.
- c) Well locate “Arms ”to “Chamber base” and “Pedestals”, so that they well match to each other .
- d) Tighten screws .
- e) Repeat a)-d) to assembly all “Outlet Arms” or “Entrance Arms”.

3) A/Asse

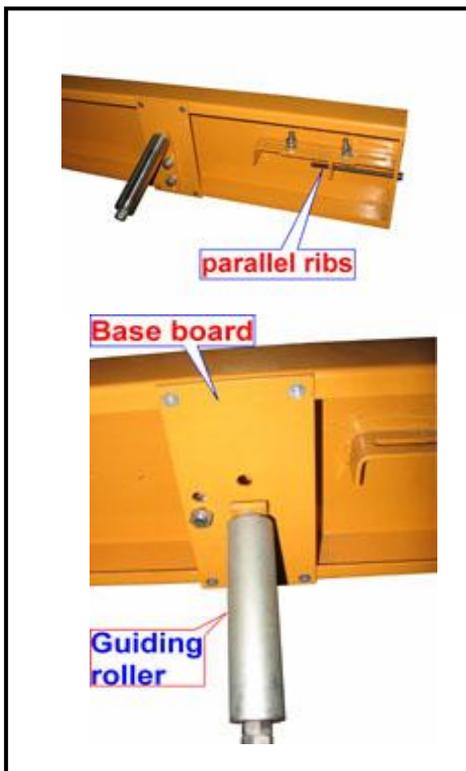
mbly

“Driving
Roller” to
“Entrance
Arms”:



- a) Comple
tely
loose
the
screws
on

“parallel ribs” in both “Entrance Arms”.



- b) Disassemble both “Base board” of “Guiding roller” from “Entrance Arms”.
- c) Put the “Transmission Chain” on gear of “Driving Roller”.
- d) Put the gear side of “Driving Roller” on parallel rib of “Entrance Arms” which assembled with “Driving Motor”.
- e) Put the other side of “Driving Roller” on parallel rib of another “Entrance Arms”.
- f) Put screws into screw holes of bearing base of both side of “Driving Roller” through the “Distance Adjusting Bar” with washer & spring washer. Screw both bearing bases on both side of “Driving Roller” to the parallel rib of “Entrance Arms”. Do not tighten the screws.
- g) Put the “Transmission Chain” on gear of motor.
- h) Turn the 2 screws at the end of both “Entrance Arms”, so that “Transmission Chain” is tensioning properly and “Driving Roller” is vertical to the “Entrance Arms”.
- i) Assemble both “Base board” of “Guiding roller” to “Entrance Arms”.
- j) Tighten screws on bearing base of “Driving Roller”.



B/ Assembly “Compliant Roller” to “Outlet Arms”:

- a) Completely loose the screws on parallel ribs in both “Outlet Arms”.
- b) Disassemble both “Base board” of “Guiding roller” from “Outlet Arms”.



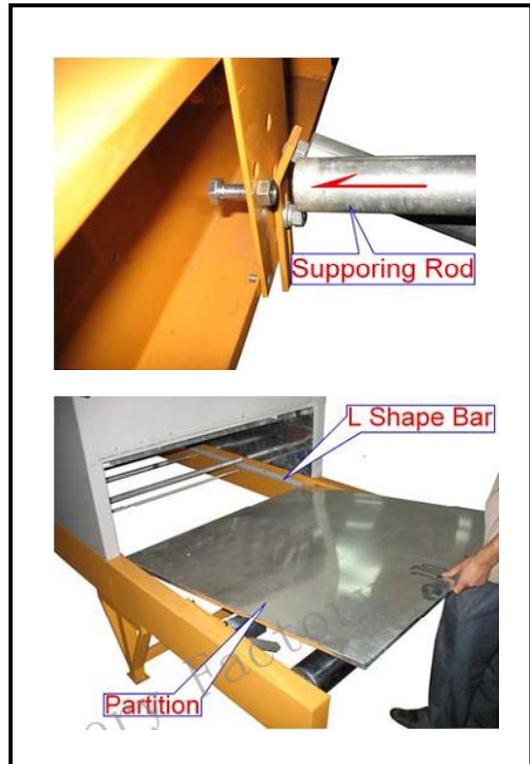
- c) Put 2 sides of “Compliant Roller” on parallel rib of “Outlet Arms”.
- d) Put screws into screw holes of bearing base of both side of “Compliant Roller”, through the “Distance Adjusting Bar” with washer & spring washer .Screw both bearing bases on both side of “Compliant Roller” to

the parallel rib of “Outlet Arms”.

- e) Assemble “Base board” of “Guiding roller” to “Outlet Arms”.

4) Assembly “Supporting Rod” between the “Entrance Arms”.

- a) Loose the screw on “Base board” of “Guiding roller” on the Entrance Arm that without motor, until screw end is at same height as the screw nut.
- b) Put one side of “Supporting Rod” on the screw on “Base board” of “Guiding roller”.
- c) Put the other side of “Supporting Rod” on the loosen screw of point a).
- d) Drive the screw until it’s completely inserted inside the “Supporting Rod”.
- e) Fasten the screw that inserted in “Supporting Rod”.

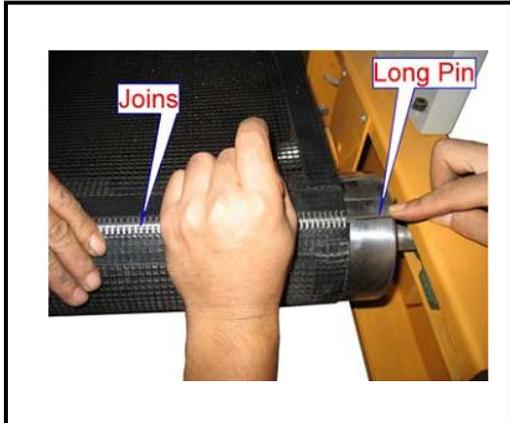


5) Insert all partitions inside heating chambers on the “L” shape bar.

6) Assembly conveyor belt to Dryer:

- a) Put the conveyor belt through all heating chambers above all supporting rods inside heating chambers and “Driving Roller”.

b) Convey the conveyor belt back above all

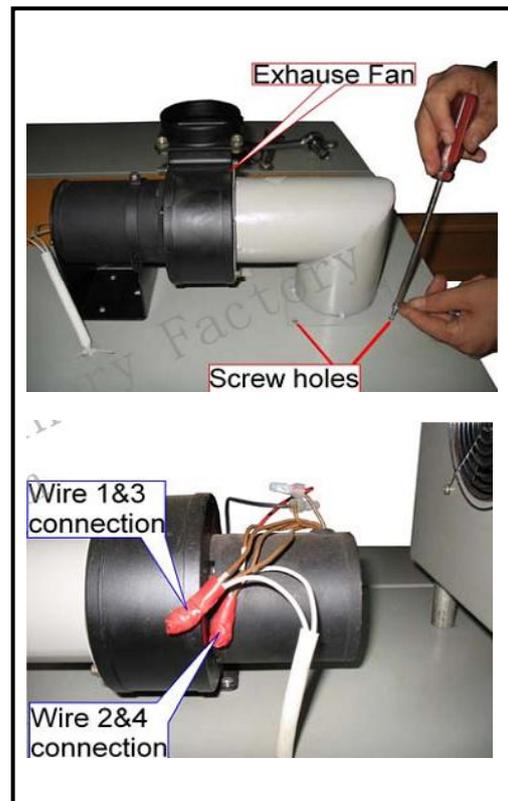
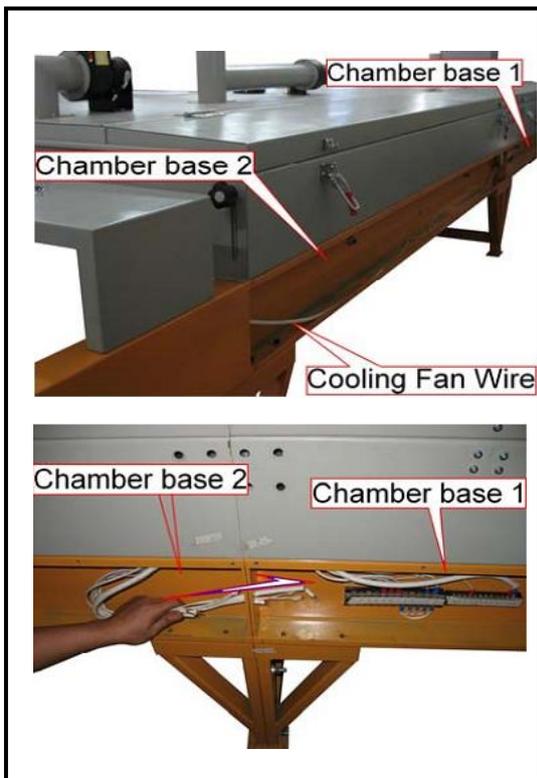
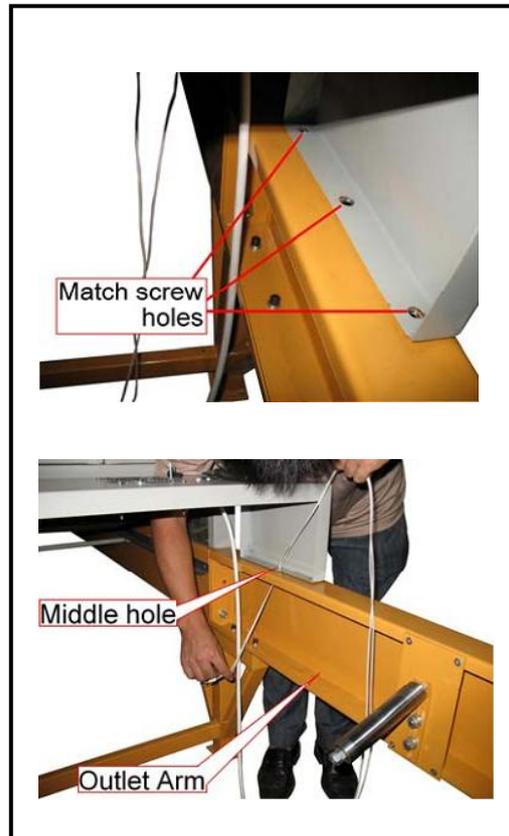


supporting ride and guiding rollers.

- c) Get the 2 ends of conveyor belt close , and put joints together.
- d) Insert the long pin inside the hole in the joint.

7) Cooling Fan assembly.

a) Put “Cooling Fan Unit” on “Outlet Arms”



matching screw holes in them

- b) Put electrical wire in to “Outlet Arm” through the middle hole at foot of “Cooling Fan Unit”
- c) Screw the “Cooling Fan Unit” to “Outlet Arms”.

8) Exhaust Fan assembly.

- a) Assemble exhaust fan on top of heating chamber near entrance matching to the screw holes at top end of the chamber.
- b) Connect wire of number 2 & 4 which are from exhaust fan to one of the electrical wire on top of heating chamber which is near the fan. Then connect wire number 1& 3 from fan to another electrical wire on top of heating chamber.

9) Circuit Fan assembly.

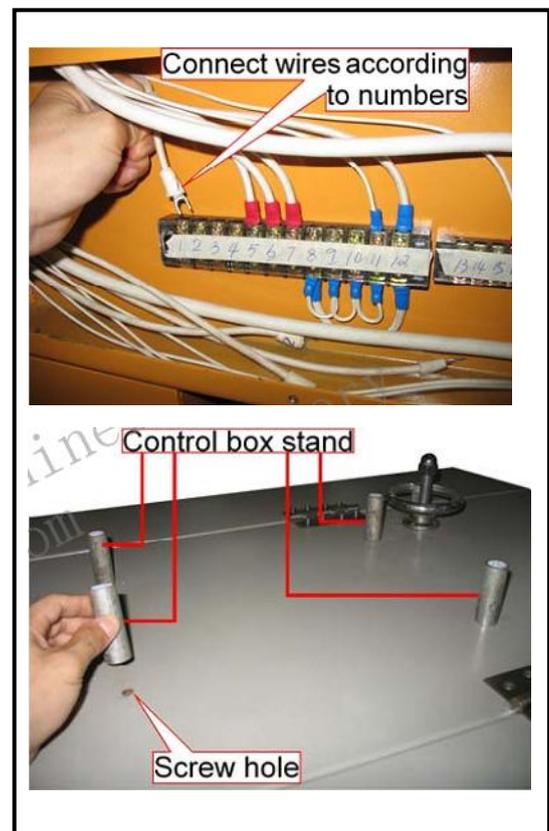
- a) Assemble “Circuit Fan” at middle top of the heating chamber.
Connect wire number 2 & 4 from fan to one of the electrical wire on top of heating chamber which is near the fan
Then connect wire number 1 & 3 from fan to another electrical wire on top of heating chamber.

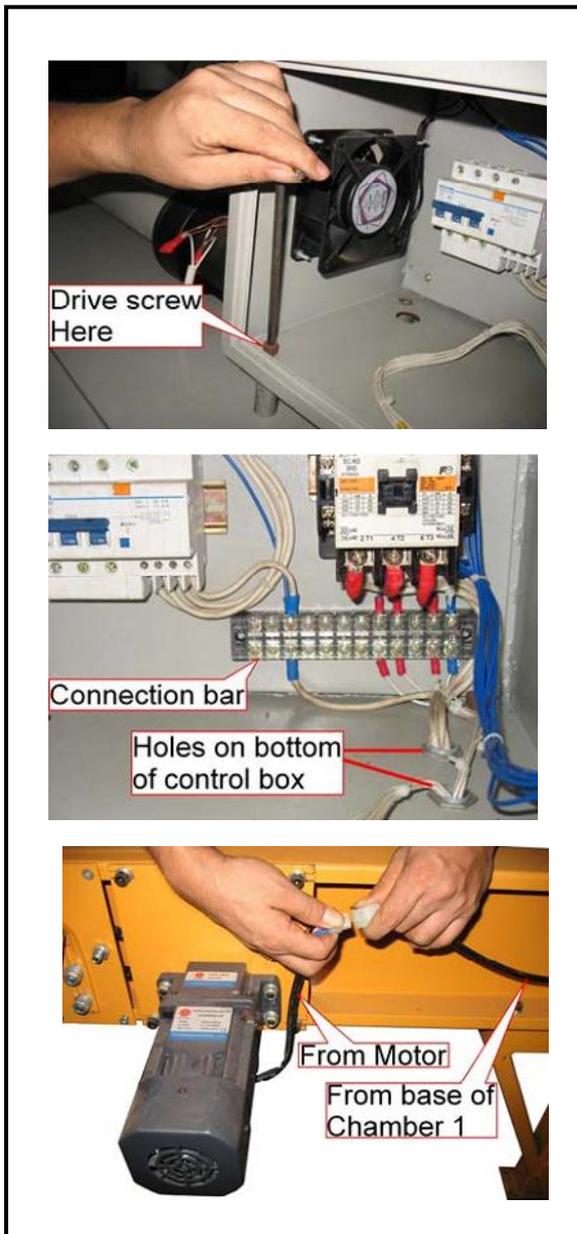
10) Wire Connection:

A/ Wire connection in Chamber Bases:

- a) Put electrical wire of “Cooling Fan Unit” into chamber base of Chamber 2 through the holes between Outlet Arm & chamber bases.
- b) Put electrical wires in chamber base of Chamber 2 into chamber base of Chamber 1 through the hole between them.

Connect wires to the corresponding connection bar in junction box.





- c) Repeat a) & b) to connect electrical wire to chamber 3 if the dryer has Chamber 3.

B/ Wire connection of Control Box

- Put the 4 “Control Box Stands” upon screw holes near top of entrance.
- Put “Control Box” on the 4 “Control Box Stands”, screw holes on box bottom matching to holes of “Stands”
- Open the door of control box.. Put screw through screw holes in bottom of control box and “Control Box Stands” to tighten the “Control Box” on top of the dryer.
- Put the electrical wires which are on top of dryer into Control Box through the big holes on bottom of control box.
- Connect electrical wires to the corresponding connection bar.

C/ Wire connection of Motor:

- Put the electrical wire which is for motor from base of Chamber 1 into “Entrance Arm” which is assembled with Motor.
- Adapt the wires on motor to the wire from base of Chamber 1.

6. Operation Step:

- Turn on the “Power Switch”, “Conveyor Switch”, “Fan Switch”.
- Turn on the “Heating Switches”. And set heating temperature.
- Put drying objects to be dry on conveyor belt at entrance.
- Pick up objects from Outlet side of the machine.
- Adjust Conveyor speed if the object has not been dried properly.
- Adjust height of the heating tubes by turning the wheels on top of heating chamber if color of objects is burned.



7. List of Electric Part:-M-10660XIR

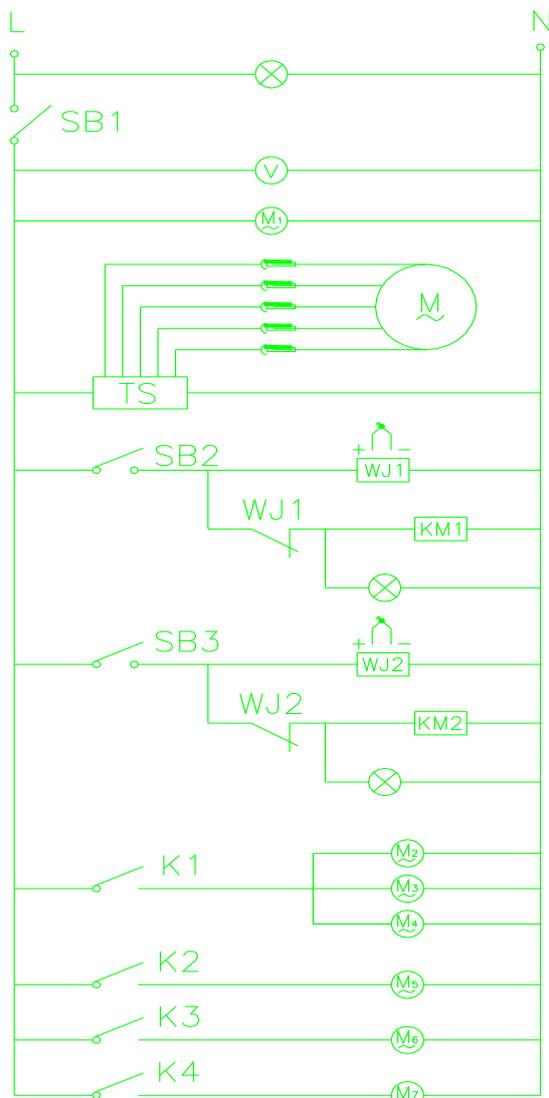
No.	Component Name	Model No.	Specificati on	Qty		
				For 1 Chamber	For 2 Chambers	For 3 Chambers
1	AC Contactor	CJX2-8011	80A	1	2	3
2	Air Break Switch	DZ47LE	63A	1	1	
		NF100-SS	100A			1
3	4 Pins Connection bar	TC-604	60A	1	1	1
4	12 Pins Connection bar	TB-2512	25A	1	1	2
5	12 Pins Connection bar	TB-1512	15A	1	1	1
6	Thermostat	BKC	K 0-399℃	1	2	3
7	Base of Thermostat	PF083A	2-m4*20	1	2	3
8	Revolving Switch	SS-30	30 holes	2	3	4
9	Indicating light	TPNR-25	220V	2	3	4
10	Button Switch	C523	15A	2	4	4
11	Cooling Fan	12038	220V	4	4	4
12	Voltage Meter	85L1-V	0-450V	1	1	1
13	Motor	51K90RGU-C F-J+5GU30K	90W 220V	1	1	1
14	Motor Speed Controller	US -590-02	90W	1	1	
		US -590-02	120W			1
15	Exhaust	CY100	45W	2	3	
		CY100	120W			4
16	Thermocouple	A-106	K2.0m	1	2	1



● List of Pneumatic & Electric Part : M-80240XIR

Sequence No.	Component Name	Model No.	Specificati on	Qty
1	AC Contactor	CJX2-8011	80A	2
2	Mains Switch	DZ47LE	63A	1
3	4 Pins Connection bar	TC-604	60A	1
4	12Pins Connection bar	TB-2512	25A	1
5	12Pins Connection bar	TB-1512	15A	1
6	Thermostat	BKC	K0-399	2
7	Revolving Switch	SS-30	30 holes	3
8	Indicating light	TPNR-25	220V	3
9	Button Switch	C523	15A	4
10	Cooling Fan	12038	220V	4
11	Voltage Meter	85L1-V	0-450V	1
12	Motor	51K90RGU-CF-J+5GU30K	90W 220V	1
13	Motor Speed Controller	US-590-02	90W	1
14	Exhaust	CY100	45W	3
15	Thermocouple	A-106	K2.0m	2

烤炉电路控制图



电源指示灯	Indicator of power
电压表	Voltage meter
电箱风机	Electron box Motor
走带电机	Belt Motor
走带调速器	Belt Speed adjuster
加热温控1	Temperature controller 1
加热交流接触器1	AC contactor 1
加热指示灯1	Heater indicator 1
加热温控2	Temperature controller1
加热交流接触器2	Heater indicator 2
加热指示灯2	Heat indicator 2
尾部风机	Motor of machine end
一节风机	Motor of 1 section
二节风机	Motor of 2 section



9. Trouble Shooting:

Malfunction	Cause	Solution
Heating temperature out of control.	1/Poor connection of Thermostat	1/Check circuit to make sure thermostat is well connected.
	2/ Thermostat is broken-down.	2/Replace the thermostat.
	3/ Thermocouple is poor connected or broken-down.	3/Make sure thermocouple is well connected. Replace the thermocouple if it's already well connected.
	4/ The AC relay cannot shut off the power.	4/ Replace the AC relay.
Heating Tubes cannot be heated	1/Fuse is melted.	1/Replace the fuse.
	2/Circuit is opened somewhere.	2/Check circuit. To make sure nothing loose.
	3/Thermocouple is poor connected or broken-down.	3/Make sure thermocouple is well connected. Replace the thermocouple if it's already well connected.
Speed of conveyor belt is abnormal	1/Setting of speed controller is incorrect	1/Reset the controller
	2/ Poor connection of speed controller	2/Check circuit and reconnect the speed controller
	3/Motor is out of work	3/Check circuit or replace motor .