



Quanzhou Famous Trademark

**Multifunctional
circulating dryer**

User's manual

Anxi Yongxing Machinery Co., Ltd.

Please read this manual carefully before you use this machine.

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Chapter One, Usage & scope of use

This series of products is a general machinery for tea processing operations, suitable for green tea, black tea, oolong tea and other famous tea processing, exquisite drying operations.

Chapter Two, Main technical Specifications

S/N	Item	Unit	Parameter values	
			YX-6CHZ-28 type	
1	Dimensions (length × width × height)	mm	5600 x 2300 x 2300	
2	Heating method	/	Electric	
3	Chain Plate DC Speed regulating motor	Power	kw	2
		Speed	r / min	1800
		Rated voltage	v	220
4	Heating elements	Power	kw	80
5	Fan DC Speed regulating motor	Power	kw	3
		Speed	r/ min	1800
		Rated voltage	v	220
6	Dial-up power (DC motor)	Power	kw	0.75
		Speed	r / min	1400
		Rated voltage	v	220
6	Total effective Drying Area	m ²	30	
7	Number of drying layers	layer	6	
8	Weight of the whole machine	kg	2000	

Chapter Three, Structure and working principle

According to the principle of heat transfer and temperature transfer, the heated dry and hot air is sent into the flood box and penetrating into the upper part of the conveyor, and the wet material spread on the baking plate for hot and humid exchange, so that the water is fully vaporized and evaporated, also the wet materials dry and dehydrated according to the requirements.

The machine is composed of a drying chamber, a variable speed transmission device and a feeding device, and it is used by a composite sleeve of a heating and auxiliary unit in an Air supply unit. (Dryer's matching burner is 6CST-60Y).

The feeding conveyor device is on the ground forming 30° inclination, the front is equipped with a feeding table, wet materials are added from here, the conveyor belt above the feeding table is equipped with adjustable material amortization thickness of the mixer, conveyor belt bottom configuration of the active door, can be timely to the conveyor belt due to the sticky plate caused by the return of tea in this removal; 6CST-30 Type tea dryer conveyor device and drying room the topmost baking plate connected into a cycle, cold air through the air Supply device and heating sub-machine work together to heat into dry hot air as a drying medium into the drying chamber. Tea through the workbench uniform feeder by the baking plate into the drying room, with the movement of the baking plate, the transport process and hot air heat exchange, so that the drying material (tea) to meet the requirements of different drying process, the chain from the top to the bottom of the speed slowed down in order to conform to the law of material drying, the bottom with a leaf sweeper can automatically and constantly remove leakage, pieces, drying room back end can be

distributed duct, air volume size can be adjusted, drying the material from the front lower feeder discharge.

Drying room wall plate using mezzanine, good insulation performance, before and after there are ready maintenance, observation of the door.

The power of the dryer is supplied by the gearbox, which mainly consists of a speed regulating motor, a pot wheel reducer and a series of chains and chains. The movement of the baking plate mainly has the external sprocket formed by the internal traction wheel chain dragging.

Because of the different moisture content of the material and the difference of drying process, the output speed of the reducer can be adjusted quickly and slowly to meet the requirements of the drying process.

Air supply device mainly has the fan, the air supply pipe fittings and contains the regulating valve to adjust the bellows and so on, the device depends on the matching heating sub-machine, the difference between the positive pressure type and the negative pressure type.

The structure principle of the heating sub-machine is detailed in the instructions of the different sub-machines.

1 , flame-Stabilizer plate 2 , Nozzles 3 , ignition electrodes 4 , combustion cylinders 5 , triangular bracket 6 , Exhaust valve 7 , Pressure gauges 8 , can't ignite 9 , Electric eye - , solenoid valve One , Oil pumps A/ , peep plate A , chassis A/ , Control Box A , Filters (, Suction barrel A , Wind leaves \$, mounting flange A , Motor A , Copper Tubes A , couplings

Chapter Four, Use and maintenance

4.1 Every time before the boot must be carefully checked, the transmission parts are normal, dry room has barrier-free and other debris, all normal after the power can be turned on.

4.2 The drying chamber must be fully preheated before loading, and start production when the room temperature rises to the temperature required for drying.

4.3 The amount of material should not be invested too much, also should not appear empty plate, to bake materials after the solution of the sieve, remove the material in the bamboo pin debris.

4.4.4 Adjust the thickness of the material layer and the drying time of the whole process according to the drying degree of the baked material (ie, the water content requirement). The thickness of the material layer can be adjusted by adjusting the handwheel of the screed, and the speed of the drying material can be adjusted by the controller.

4.5 The feeding conveyor is equipped with a loading platform and should be cleaned regularly.

4.6 The air conditioning box can regulate the stratified air intake to meet the drying requirements of different materials.

4.7 The dryer should pay attention to the heating of the motor, gearbox and various transmission parts during operation. The temperature rise of the motor must not exceed the specified value of the motor. The temperature rise of the bearing must not exceed the allowable temperature. The temperature rise of the transmission should not exceed the relevant regulations.

4.8 During the operation of the dryer, if abnormal vibration or noise is found, it should be stopped immediately for inspection, quickly identify the cause, deal with it in time, and eliminate the fault before continuing work.

4.9 Every shift should always pay attention to the lubrication of the transmission parts and the oil level of the transmission box, and should maintain normal lubrication.

4.10 Before the end of each drying, the residual material on the feeding part and the screed wheel should be cleaned. After the end, the ash in the machine and around it should be cleaned.

4.11 Always pay attention to the working condition of the heating device, timely control the safety and reliability of the thermal device, and ensure the normal operation of the drying operation.

4.12 Operation of the heating device (burner).

After installation and commissioning, it can be used normally. Please check carefully before each operation.

4.12.1 Is the entire system ready?

4.12.2 Whether the power supply voltage and each component are loose or fall off.

4.12.3 Is the power supply voltage normal and the fuel flow is smooth?

4.12.4 There is no abnormal sound during start or combustion (after operation).

After the inspection is completed, the operation can be started. The operation process is automatic program control (program controller). Through the external system control, it can realize full-automatic operation without manual operation.

4.13 After one year of use, make a comprehensive overhaul. Pay attention to the following items during maintenance:

4.13.1 It is strictly forbidden to directly hit the part with a hammer when removing the part.

4.13.2 Folding the hundred-page baking board should be two-person cooperation substation to observe the two sides of the door, relax the traction chain and pull the traction up, pull out, so that the hundred-page baking board and the traction chain support Xiao are separated.

4.13.3 The disassembled parts should be carefully cleaned, the oil stains cleaned, and properly stored for protection against collision.

4.13.4 When loading the chain, it should be noted that the tightness of the two chains is the same.

4.13.5 The traction sheave set screw must be used to prevent axial movement of the traction sheave.

4.13.6 Maintenance of the heating unit is detailed in this manual.

Chapter Five, Daily maintenance of the burner

5.1 Check the fuel tank frequently to ensure a reasonable oil storage.

5.2 Always check whether the connection between the burner and each component is tight, loose or not, and the position is not changed.

5.3 Check the power supply and circuit before starting each unit to ensure that there are no abnormalities.

5.4 Check for abnormal operating noise and other abnormal conditions during operation.

5.5 Check if the oil pressure is normal, whether the combustion is good, and whether the control system is sensitive.

5.6 Note that the working environment of the burner should be clean and dry, and the temperature at the connection flange should not be too high. In particular, the control circuit must not be exposed to moisture or high temperature.

5.7 Because fuel oil may contain oil and moisture, it should be avoided that water or oil will enter the pipeline at the bottom of the tank and affect normal combustion.

Chapter Six, Regular maintenance of the burner

6.1 Regularly inspect and maintain the system as a whole.

6.2 Regularly clean the filter screens to ensure the smooth flow of oil.

6.3 Clean the fuel tank regularly to prevent oil or moisture from entering the oil circuit.

6.4 Regularly clean the burner, especially the flame detector (ie the electric eye) should be kept clean. Be careful to use a dry, soft cloth for cleaning. Do not use water.

6.5 Regularly check the position of the nozzle, electrode and flame plate to change the scale or carbon deposit.

6.6 Clean the chimney regularly to prevent blockage or oil leakage.

6.7 Check the electrical circuit connections regularly for abnormalities.

Chapter Seven, Safety precautions

7.1. The use of this series of dryers should comply with the relevant safety accidents and prevention regulations promulgated by the national professional department.

7.2. Read the instruction manual carefully before operation and be familiar with the relevant safety regulations.

7.3. The operator should be in good health and familiar with the operation of the dryer. Fatigue operations are strictly prohibited.

7.4. The dryer is a high-temperature tumbling equipment for tea. During the drying process, please do not approach the safety mark (Figure 1).

7.5, do not arbitrarily dismantle the outside of the chassis, the transmission parts to remove the protective cover, so as not to cause personal injury. Safety sign (Figure 2).

7.6. When the dryer is being debugged or overhauled, an obvious warning sign should be hung to avoid accidents.

7.7. The dryer should have a safe and reliable grounding connection to the ground (Figure 3).

7.8. The dryer is a tea rolling operation device. During the drying process, please do not approach, prohibit other objects of the human machine from contacting the machine and the safety mark (Fig. 4).

7.9. The fuel tank is prohibited from approaching the heat source and the open flame (Figure 5).

Chapter Eight, Installation and debugging

Random inspection of all parts, accessories and spare parts should be carried out before installation of the dryer. If there is any defect, it should be recovered or repaired. The following items must be observed during operation and use:

8.1 The requirements of the instruction manual should be clearly observed before installation.

8.2 Check that the components are normal, especially tools, parts and debris should not be left in the drying room.

8.3 During the installation process, the handling and movement of the main engine shall be hoisting and rolling. The lifting steel rope must be firm and reliable. It must be stable when unloading. When rolling, install more than four rollers at the bottom of the drying chamber.

8.4 Install according to the installation diagram.

8.5 The main machine of the dryer is strictly prohibited to reverse. Before the test, the input chain should be unloaded. After observing the steering of the output shaft of the reduction gearbox, the drive chain can be put on and the test drive begins.

8.6 Sealing parts must be filled between the connecting parts of the components of the air supply device to prevent air leakage from hot and cold winds.

8.7 The sensing line of the pressure thermometer is required to be straight and not bent.

8.8 Commissioning

8.8.1 In the test run, grease is then injected into each lubricating component.

8.8.2 Check that the adjustment of the fan is in the direction of the arrow.

8.8.3 The test run of the fan must be carried out in conjunction with the heating auxiliary machine.

8.8.4 When the drying machine is tested, it should be observed whether the hundred-page baking plate on the upper leaf conveyor is centered. If there is a serious side phenomenon, it means that the drying host has not reached the horizontal position, and the vehicle should be corrected before being tested.

8.8.5 When the test is run, the speed of the adjustable speed motor can be adjusted to control the instrument. The operation is fast and slow for 1 hour.

8.8.6 Before the production, it must be cleaned once. The hundred-page drying board is coated with anti-rust grease. It should be officially produced after the air is dry and baked with hot air.

Chapter Nine, Common faults and troubleshooting Methods

9.1 General faults can be repaired by referring to Table 1 below. Please contact us if you cannot handle them.

NO.	Part name	Fault content	Cause of occurrence	Troubleshooting methods
1	Upper page conveying device and drying chamber	Uniform impeller rotation Suddenly	① The drive chain compression wheel is in the abnormal working position	Reasonably adjust the position of the pinch wheel
			② The baking sheet runs slowly and slowly	Find out the cause of the defects in the baking sheet operation
			③ Drive chain wear elongation or sprocket wear	Replace the chain or sprocket
		Drying plate operation Suddenly	① Cloud impeller. There is a foreign body obstruction in the operation of the tea wheel or the sweeper	Exclude foreign matter
			② The baking sheet returns to the operation and is hindered by the back tea	Open the conveyor back to the tea door; put back the tea
			③ Left and right traction chains are not tightly stretched	Adjust the position of the drive housing

			④ Drive chain loose sag is too large	Tighten the pinch roller or gearbox position to properly tension the drive train
			⑤ Drive chain wear, elongation or chain wear	Replace the chain or sprocket

9.2 Burner troubleshooting table 2

Fault phenomenon	Failure analysis	Troubleshooting methods
1. The motor does not turn or is abnormal	<ol style="list-style-type: none"> 1. The electric eye is sensitive before ignition, and the program stops automatically; 2. The thermal relay is not reset after the action; 3. The wiring is loose or short circuited; 4. AC contactor failure, coil or contact burnout; 5. The fan blades are caught by foreign objects; 6. The oil pump is damaged and the rotation resistance is too large; 7. motor failure, bearing damage or coil burnout; 8. Program controller failure. 	<ol style="list-style-type: none"> 1. Check the direction of electric eye installation, whether it is damaged; 2. reboot after reset; 3. re-wiring; 4. replacement of AC contactors; 5. Disassembly inspection, excluding foreign bodies; 6. Remove the oil pump repair or replacement; 7. Replace the motor; 8. overhaul or replace the program controller.
2. Oil pump work abnormal, no oil or hydraulic instability	<ol style="list-style-type: none"> 1. oil pump filter blockage; 2. leakage of tubing Road; 3. Gas plug occurrence of oil pump; 4. the oil pump wear is serious; 5. The vacuum degree of the supply tubing road is too large; 6. The coupling is damaged and cannot be rotated. 	<ol style="list-style-type: none"> 1. Remove the filter cleaning; 2. Check out the leak and eliminate the air leakage; 3. Open Exhaust valve drain gas; 4. replacement of oil pumps; 5. Improve the position of the fuel tank and reduce the vacuum degree of the pipeline; 6. Replace the coupling.

<p>3. Ignition Transformer does not discharge or produce abnormal electric flowers</p>	<ol style="list-style-type: none"> 1. the electrode has carbon accumulation or dirt affect the normal discharge; 2. The electrode position changes, the spark is not normal; 3. ignition transformer burnout; 4. The high voltage wire connector is detached or broken down; 5. The programmer is faulty. 	<ol style="list-style-type: none"> 1. Remove dirt and keep the electrode clean; 2. Adjust to the normal position; 3. Replace the transformer; 4. Rewire or replace the high voltage line; 5. Repair or replace the programmer.
<p>4. The nozzle does not spray oil</p>	<ol style="list-style-type: none"> 1. The nozzle is blocked; 2. The solenoid valve coil is burnt out; 3. The solenoid valve plug is blocked or stuck; 4. Flame detector failure; 5. The programmer is faulty. 	<ol style="list-style-type: none"> 1. Remove the nozzle to disassemble and clean; 2. Replace the coil; 3. Disassemble cleaning or replacement; 4. Inspection or replacement; 5. Repair or replace.
<p>5. Can not be properly ignited or automatically extinguished after successful ignition.</p>	<ol style="list-style-type: none"> 1. The damper is too large to blow out the flame; 2. The ignition electrode position is not suitable; 3. The water in the oil is too high to burn properly; 4. The oil pressure is too low, the atomization is bad, affecting the combustion; 5. Nozzle wear or fog angle is not suitable; 6. Flame detector failure; 7. The programmer is faulty. 	<ol style="list-style-type: none"> 1. Re-adjust the damper; 2. Readjust the electrode position; 3. Replace better fuel; 4. Appropriate adjustment of oil pressure; 5. Replace the nozzle; 6. Inspection or replacement; 7. Repair or replace.
<p>6. Black smoke when burning</p>	<ol style="list-style-type: none"> 1. The damper opening is too small; 2. The oil pressure is too low and the atomization is not good; 3. The oil filter is clogged, affecting normal atomization; 	<ol style="list-style-type: none"> 1. Adjust the damper properly; 2. Adjust the oil pressure properly; 3. Remove the cleaning; 4. Disassembly and cleaning; 5. Retighten the seal or replace it;

	<p>4. The wind leaves are too ash or the air duct is blocked;</p> <p>5. Nozzle oil leakage;</p> <p>6. The position of the flame plate is not suitable;</p> <p>7. The furnace pressure is high and the matching is not suitable.</p>	<p>6. Adjust the correct position according to the instructions;</p> <p>7. Replace the nozzle or replace the larger air pressure burner.</p>
<p>7. Body vibration during combustion</p>	<p>1. The body is not installed securely;</p> <p>2. The amount of combustion is too large;</p> <p>3. The position of the flame plate is not suitable, which affects normal combustion;</p> <p>4. Burner or nozzle matching is not suitable.</p>	<p>1. Reinstall firmly;</p> <p>2. Readjust the amount of combustion;</p> <p>3. Adjust the position of the flame plate;</p> <p>4. Replace the nozzle or replace the burner.</p>
<p>8. Immediately after the start, catch fire, stop at random</p>	<p>1. The solenoid valve is faulty, the valve core is stuck and cannot be closed or closed, and the oil is leaking;</p> <p>2. The programmer is faulty.</p>	<p>1. Repair or replace the solenoid valve;</p> <p>2. Repair or replace the programmer</p>

Chapter Ten, List of annexes

- (1) Dryer main machine (including main body of the main box and loading conveyor): 1 set
- (2) Reducer (including reducer, motor, adjuster, rack): 1 set
- (3) Air supply device (including air supply pipe, pipe fittings, air conditioning box, coupling seal and main fan): 1 set
- (4) Pressure thermometer 0-200 ° C (including sensing wire, fasteners): 1 set

Product warranty voucher

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S/N	Content				
1	Product	Name	Trademark	Model	Serial code
2	Supporting Info.	Brand	Type	Serial number	Production unit
3	Sales unit	Name	Address	Telephone	Warranty certificate
4	Maintenance staff	Name	Address	Telephone	Warranty item
5	Sales record	Purchase unit	Purchase address	Purchase date	Purchase invoice number
6	The whole machine warranty period (months)		12		
7	Main component warranty period (months)		Burner, Motor		6
8	Wearing parts, other parts warranty period (months)			transmission belt	3

二、 The warranty is not implemented in the following cases

- A. The agricultural machinery user cannot prove that the agricultural machinery product is within the validity period;
- B. The product exceeds the validity period;
- C. Damage caused by failure to use the maintenance as required by the instructions;
- D, The user's manual shall not be modified or disassembled, the modification or disassembly of the machine change the performance of the machine or cause damage;
- E, After the failure, the agricultural machinery user cannot make a technical appraisal for the cause of the failure due to improper disposal;
- F, Other man-made damage due to non-product quality;
- G, Causing damage as a result of force majeure;

Repair Status Record sheet

Repair time	Failure situation	Repaired situation	Exchange delivery time	Return certificate