# **Chocolate Cooling Tunnel**

Instruction Manual AMC-CT600

AMC SYSTEM TECHNOLOGY USA, INC.

# 1. Equipment Application

AMC cooling tunnel is mainly used for cooling food industry. Such as the chocolate, candy, biscuit, Wafer etc.

### 2. Structure Characteristics

- 1. The whole machine is beautiful and easy, full consideration of GMP hygiene requirements.
  - 2. All the drive parts meet GMP hygiene requirements totally.
  - 3. Stainless steel convers body design, convenient to clean.
  - 4. Covers design, easy to maintain.

### 3. Technical Features

- (1) Main performance
- 1. Conveying belt running through the high sensitivity sensor, drive three cylinder actions to achieve automatic adjustment knitting function.
- 2. Line body speed frequency conversion to be adjustable with Inverter.
- 3. Cooling tunnel inside temperature adjustable, through the control panel control setting.
  - 4. Supply air fan way air frequency conversion to be adjustable.

(2) Major Parameter

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NO.	PROJECT	PARAMETERS	REMARK
1	Line body size	L2500*W600*H1000mm	Subject line body size
2	Conveyor belt size	L6000*400*δ1.2mm	
3	Conveyor belt speed	0~1.2m/min	Frequency control of motor speed
4	Motor power	0.75kw	China high-quality brand
5	Fan power	1.2kw	
6	Machine weight	400kg	

# 4. Operational guidelines

- (1) Inspection before use
- 1. Make sure the machine appearance complete and perfect pieces, without damage.
- 2. Make sure that actuating device, Head tail, and Automatic adjustment partial device is in normal condition.
- 3. Make sure Conveyor is in good condition, no scratches and damage.
  - 4. Make sure the Send blower and the cover body are all closed.
- 5. It is strictly prohibited to put on the tools and sundry on the machine.
- 6. Make sure that Power light and maintenance switch in the normal condition, and stop button reliable and effective.
  - 7. Make sure that Control panel light in normal condition.

# (2) Safety protection In the process of using

- 1. It is strictly prohibited to open drive cover body, any transfer adjustable partial tension bridle device when the machine is started.
  - 2. It is strictly prohibited to contact the rotating parts of the machine.
- 3. It is strictly prohibited to shorting-contact E-stop switch and forces starting the machines.

# 5. Standard Operating Procedure

- 1. Open the main switch on the side of the electrical box.
- 2. Check if the location of the emergency stop switch on the cooling tunnel at both ends of the control panel and electrical box in the raised state.
- 3. Check if the electrical panel on the set temperature of the temperature controller is correct, the temperature set value should be between 5  $^{\circ}$ C -15  $^{\circ}$ C.
- 4. Press the Conveyor Start button on the main electrical box, and then adjust the belt line speed dial.
- 5. press the Cooling Start button to start the evaporator fan and outdoor refrigeration unit.

# 6. Record and Tracking

We suggest that the cooling effect for each kind of products, should record as follows:

1. Varieties, name and shape dimension.

- 2. Speed of conveyor belt.
- 3. Speed of fans.
- 4. Temperature setting of the Cooling tunnel.
- 5. The recovery situation of (in and out) cooling water or condensate water is normal or not.

### 7. Stop

- (1) Emergency Stop
- 1. When there is an emergency or accident, the first thing is to push the stop button.
- 2. And the same time, cut off the power supply of whole control system, then the machine came to a standstill.

### (2) Normal Stop

We can turn off the cooling tunnel when there is no candy in the cooling tunnel.

### 8. Maintenance

- (1) Announcements
- 1. Maintenance must be doing while the power supply of cooling tunnel is shut down .
- 2. It is strictly prohibited to flushing cooling tunnel body and electrical control cabinet with water or liquid.
- 3. Conveyor power roller outer circle is a layer of rubber. It is strictly prohibited in the cylindrical surface daub grease, also not allowed to use corrosive oil, liquid to clean.
- 4. All voltage of the machine can cause harm to human body. So the man who control the electric controlling part must be special training after manufacturer of professional and technical personnel.
- 5.If you need to maintenance the machine with electric system are charged, you need to take safety measures and keep a safe distance.
- 6. No disassembly, maintenance operation and pressure parts, in the operation of the equipment.

# (2) Daily Maintenance

- 1.Daily maintenance
- (1) Check the workings of the host, start-stop value is to set the same to the temperature every day.
  - (2) Check the high pressure, low pressure is in the range of set value.

- (3) Check the compressor oil.
- (4) The cooling water flow, temperature, pressure is appropriate or not.
  - (5) Evaporator condensate water pipe is obstructed.
  - (6) Check the cooling tunnel upper cover is seal closely.
- (7) Axial flow fan transhipment is smooth, air output is appropriate or not.
- (8) Import and export temperature of the cooling tunnel is appropriate or not.

#### 2. Maintenance

- (1) Clean the evaporator once per month.
- (2) All section door add oil half an year.
- (3) Check the fan belt for wear and the bearings once a month.
- (4) Cooling tunnel host change oil once a year.

### (3) Maintenance

- 1. Maintenance must have the professional personnel responsible for.
- 2. Before maintenance must read this manual book.
- 3. Safety protection device must to be recover to normal effective after maintenance.