







# **AUTOMATIC** FILM COATER

**FSC-120 COATER** 





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### **TECHNICAL FEATURES**

- Working capacity: 120 kg/ batch
- Power supply: 380V, 3 phases, 50 Hz

#### A. MAIN MACHINE

- 1. Dimension:
  - (H) 2000 x (W) 1750 X (D) 1350 mm
- 2. Drum dimension: diameter of 1100 mm
- 3. Machine weight: approx. 2000 kgs
- Drum materials: SS 304, perforated Ø4mm, 2mm thick, internal surface is mirror-finish, clean and easy for hygiene cleaning.
- 5. Frame: V63, 5mm thick, channel type.
- 6. Reinforcing material: SS 41, 8mm thick
- 7. Drum cover: SS304, 2 cover layers with middle thermal insulation layer to avoid loss of cold air in machine room and assure safety for user.
- Side doors: SS304, 2 cover layers with middle thermal insulation layer; door joint made of heatresistant silicon, easy to assemble or dismantle for cleaning.
- 9. Spray nozzle holding shaft: SS 304.
- Output door for discharging tablets: SS304, 18mm thick, door joint made of heat-resistant silicon, easy to assemble or dismantle for cleaning.
- 11. Main door: Ss304.
- 12. Sight glass window: made of heat-resistant acrylic sheet, 8mm thick.
- Reversed-rotary impellers and their holding shaft: SS 316L.
- 14. Gear reducer motor of drum: capacity 2.2 kw, 380V, 3 phases. 50 Hz.
- 15. Drum speed: 1-20 rpm controlled by ABB inverter.



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- 16. Spray nozzle: (Schlick Germany): quantity: 02 units
- 17. Peristaltic pump (Watson Marlow-England): 530S: 1 unit.
- 18. Silicon band: Watson Marlow-England.
- Solution tank: with stirring motor and wheel, agitator impeller made of SS 316L, volume of 100 liters: 1 unit.
- 20. Solution stirring motor: air rotary motor with dust- resistant seal (explosion- proof): 1 unit (Taiyo Japan).
- 21. Lamp for drum: 1 item Korea.
- 22. Blower pipe mouth: SS 304, tightly attached to drum.
- Suction pipe mouth: SS 304, tightly attached to drum, sliding type for easy cleaning. No need dismantle out of the drum.
- 24. Blower pipe and suction pipe on the top of main machine: installed with air flow regulator valve automatically controlled on touch screen. Before turning off, butterfly valves should be closed to prevent humidity.
- Ball bearing: all from KOYO. Bearings of drum have a dust resistance gasket. Two bearings are installed in the bottom of the drum.
- 26. Aesthetic design and explosion-proof safety.

# **B. CONTROL SYSTEM**

- B.1 Electricity system.
- 1. Control panel:10.4 inch touch screen (Japan).
- Program controller: by PLC Siemens (Germany) or Mitsubishi (Japan).
- RTD module connected with PLC.
- Tablet temperature indicator.
- Outlet air temperature indicator.
- Temperature gauge: OMRON, to control temperature of inlet air.
- All parameters of temperature and drum speed are displayed on touch screen.
- 6. Thermal sensor: made in Korea.
- Inlet air temperature for drying tablets reaches 80°C (may adjust up to 100°C).
- 8. Pneumatic gauge and pneumatic regulator valve: Festo Germany.

- . Power supply switch, speed control button: made in Italy.
- Electricity system: safe design, with phase-loss protection circuit, with motor protection system, resistor (interrupting heat supply as air loss), error of installed temperature and actual temperature not exceeding 1°C.

#### **B.2. PNEUMATIC SYSTEM:**

- Pneumatic system: Festo Germany including:
- Solenoid valve: 4 items
- Pressure regulator valve: 2 items
- Pressure gauge: 2 items
- Switch of spray nozzle: 1 item
- Overall compressed air filter: Festo, Germany ( required compressed air flow: 125 m3/h).
- 3. Mini filter of compressed air: Festo, Germany.
- Drum's stirring motor speed controller: 1 unit

#### C. AIR PROCESSING & HEAT SUPPLY SYSTEM

Inlet air processing system meets WHO - GMP standards, filters can dismantle or assemble easily for replacement or cleaning.

- Materials: stainless steel.
- 2. Dimension: L 2700 x W 1060 x H 1350 mm
- 3. Heat supply type: heat resistor.
- 4. Maximum resistor capacity: 36 kw
- Blower fan: flow 40m³/min, ABB motor: 2.2 kw, 380 V, 3 phases, 50 Hz.
- 6. Air filter via 4 levels:
  - Insect prevention filter, pre-filter H4, bag filter F8, Hepa EU 13 filter installed behind resistor, heat-resistant of 250°C.
- 7. Differential pressure gauge to check condition of Hepa filter.



Built-in wall installation style

### D. DUST COLLECTOR SYSTEM

- 1. Dimension: L 1100 x W 1100 x H 2500 mm
- 2. Dust collection type: dry
- 3. Turbo suction fan: Flow 60 m3/min, ABB motor: 11 kw, 380 V, 3 phase, 50 Hz.
- 4. Outlet air filter: Fabric filter with 7 bags.
- 5. Automatic dust extracting set: pneumatic cylinder.
- Dust exhaust valve: close and open by compressed air
- Optional: Exhaust air treatment via Filfer F8, Hepa.

#### E. DUCT SYSTEM

- Materials: SS 304.
- Diameter of inlet air and outlet air duct: 250 mm.

# F. CLEANING SYSTEM: manual

- Force pump: 3/4HP, 220V (Taiwan)
- Spray nozzles

#### G. SAFETY SYSTEM

The whole machine stops and displays error in following cases:

- Loss of compressed air or the compressed air is not enough pressured.
- 2. Phase loss, over-current, over-heat.
- 3. Loss of blowing air, resistor interrupts.
- Press Emergency button.
- In case of sudden power outage, drum motor stops; solution peristaltic pump stops; spray nozzle stops;
- 7. Turn off spray nozzle peristaltic pump stops.
- 8. Drum stops spray gun stops.

#### H. AUTOMATIC TABLETS DISCHARGING:

Press "Tablet Discharge" button on touch screen, the drum automatically rotates in the reserved direction to discharge tablets.

## K. OPTIONAL

Automatic sugar coating system.