

Specifications

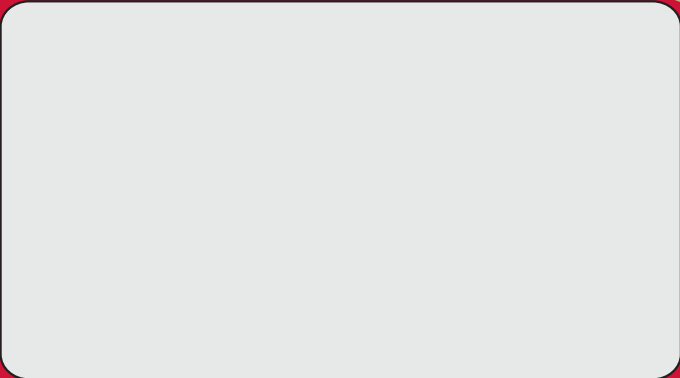
MODEL	FBDG-5	FBDG-10	FBDG-50	FBDG-60	FBDG-100	FBDG-120	FBDG-200	FBDG-300
Capacity (kg/batch)	5	10	50	60	100	120	200	300
Product container volume (L)	22	30	150	210	300	420	670	1000
Motor of suction fan (Kw)	4	5.5	11.2	15	18.5	18.5	22	30
Resistor (Kw)	6	24	36	36	54	54	96	163
Vapour:								
Pressure (Mpa)			0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6
Steam flow (kg/h)			100	120	140	140	180	310
Compressed Air								
Pressure (bar)	6	6	6	6	6	6	6	6
Flow (m³/minute)	0.6	0.6	0.9	0.9	0.9	0.9	1.1	1.1
Weight (kg)	400	500	1900	2100	2500	2650	2800	3500



FLUID BED DRYER  
& GRANULATOR  
Model: FBDG-5



Agent / Representative office



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## T & T PHARMACEUTICAL MACHINE

# FLUID BED DRYER & GRANULATOR

Model: FBDG-5

### TECHNICAL FEATURES:

- Drying capacity : 2 - 5 kg/batch.
- Density of dried material: 0.5-0.7kg/l.
- Average drying time:  $\leq 30$  minutes.
- Humidity before and after drying: 25% - 3%.
- Machine dimension: L1180 X W1060 X H2680 (mm).

### I. MAIN BODY:

#### 1.1 Filtering module:

- Materials: SS 304.
- Method of filter purifying: shaking by pneumatic cylinder.
- Filter bags: 2 sets. Material is antistatic polyester fabric (one set is in hand, one is spare part).
- Purifying cylinder for filter bag: 1 pc.

#### 1.2 Expansion chamber module:

- Materials: SS 304.
- Product area: internal/ external surface is well polished.
- Observation window: stainless steel with transparent and heat-resistant acrylic sheet.
- Lighting lamp inside drying chamber for clear observation.

- Spray nozzle port.

#### 1.3 Granule container module:

- Container volume: 22 liters, equivalent to 5 kg per batch.
- Materials: SS 316L.
- Finished product: internal surface is well polished.
- A fine mesh 200 is mounted at container bottom.
- Observation window: 1 set with transparent glass.
- Sample discharge port: to discharge sample during operation without any disturbance to operation. Made of stainless steel.

#### 1.4 Lower compartment module:

- Materials: SS 304.

#### 1.5 Sealing joint:

- Modules connected closely by sealing joint.

#### 1.6 Machine frame:

- Materials: SS 304.

#### 1.7 Open-close valve for inlet air: 01 item.

- Mechanism: automatic pneumatic system.

#### 1.8 Open-close valve for suctioning air: 01 item.

- Mechanism: automatic pneumatic system.

#### 1.9 Granulating system:

- Spray nozzle (Germany): 1 unit.
- Peristaltic pump (Watson Marlow, England) : 1 item.
- Solution tank: volume of 30 liters, agitator impeller operated by pneumatic motor (Japan).

### II. ADD-ON SECTION

#### 2.1 Heat supply system

- Air filter: bag filter F9, efficiency 95%.
- Heating type: by resistor.
- Resistor capacity: 6 kw.
- Maximum temperature: 80°C.

#### 2.2 SUCTION FAN: 1 item.

- Type: high-voltage fan, with curving blades, dynamically balanced achieving very low noise.
- Siemens motor: 4 kw, 2800 rpm, 3 phase, 380V, 50 Hz, air flow: 360 cbm/h.

#### 2.3 SILENCER: 01 item.

### III. CONTROLLER

#### 3.1. Control panel

- 65,000-colour 5.7 inch touch screen (Japan or Siemens).
- PLC made in Japan or Siemens, programming with functions:
  - + Separating dry-time into 4 stages with different time, air flow, temperature.
  - + Measuring temperature of powder during drying process.
  - + Controlling air flow by inverter.
- Emergency button: 1 unit.

#### 3.2. Electrical cabinet

- Pneumatic gauge and regulator valve: 1 item.
- CB, contactor, relay, etc. imported from Japan.
- ABB inverter.

#### 3.3. Required compressed air

- Pneumatic pressure: 5 - 6 bar.
- Air flow: 24 cbm/h.

### IV. SAFETY SYSTEM

- Explosion-relief vent.

