

High Efficiency Film Coating Machine BGB-F



Features:

1. The high efficiency film coating machine is available with 2 or 3 changeable coating drums.
2. The control system consists of PLC and HMI systems. This allows for a reasonable design and flexible programming, which are both able to adapt to different needs within the pharmaceutical technology. It is known for its reliable operation, stable performance and conformance to GMP standards.
3. Under the streamline guide plate's agitation, the tablet cores will tumble smoothly and exchange in a frequent manner, thus eliminating the risk of the tablet cores from falling and colliding, which in turns solves the problems that lead to broken pieces and chipped edges, thereby improving the rate of finished products. The narrow surface of the guide plate eliminates adhesion of the coating material to the surface, thus saving coating material and improving the overall medicine quality.
4. The peristaltic pump features a constant pressure and variable parameters, which eliminates the need for a return pipe. The turning radius of the drum varies with the pressure, allowing the slurry output and slurry quantity to be sprayed in a balanced manner without plugging the pump, and thus, saves in coating material. Cleaning is simple, and done with no dead corners.
5. The spray gun is specially designed for film coating machines, and features an easy atomization and known for its large spray coverage. The universal adjustable spray head allows the cleaning mechanism to remain unaffected by a change in quantity, so that coating can be done continuously, thus, reducing the coating time and saving coating material.
6. Display and control the negative pressure in the coating drum

We developed a negative pressure detecting point in the upper box of the coating machine and installed a 2300-1kpa pressure differential gauge (made by the American company, Dwyer) on the operating consol. This allows the operator to operate the touch screen based on technological specifications (for instance, the negative pressure being 10pa) as well as control the exhaust fan speed in order to control the negative pressure within the drum.

7. Display and control of the speed of heat-supply air

We installed an air-speed detecting point in the heat-supply air pipe and installed a 2001AV air speed gage (made by the American company, Dwyer) on the operating console. This allows the operator to operate the touch screen based on specified air speed values (8m/s) in order to control the speed of the hot air fan, and meet air supply demands.

8. Display and control of temperature value

Temperature sensors are installed at the air inlet and outlet of the film-coating machine. After the temperature signal is inputted to the PLC and compared to the set value (80), the heat exchange is automatically controlled, thus achieving film coating temperature value control.

9. Adjustment and control of sprayed syrup

The spray delivery pipe system has the function of fine adjustment of each spray gun, the syrup flow control valve and the pressing wheel of peristaltic pump in the pipe can change the turning radius according to the tightness of syrup delivery pipe(i.e. the pressure at the delivery pipe orifice), thus ensuring a constant-pressure output of syrup while the flow can be automatically balanced at any time according to the quantity of spraying, thus ensuring that the syrup is at the pressure(for instance 0.08Mpa) defined by the technological parameters, and achieving the automatic control of the quantity of syrup.

10. Adjustment and control of the coverage area of atomized syrup.

The spray gun used in the film-coating system is our own individual design, with the atomizing area adjustable by 360° using a spray head that turns to cover based on the charge quantity in the machine. Operation is convenient and easy to control, and ensures the final atomization effect is not impacted by any human error, thus facilitating standard operating procedures.

11. The memory and the print function

It is possible to automatically record relevant technological parameters of the production process in real time, and print them based on requirements. This prevents possible errors in a manual record made by the operator, and thus, ensures the truth and reliability of the original record.

Technical Parameters

Model	BGB-10F	BGB-20F	BGB-40F
Production capacity (kg/run) bulk density is 1	10	20	40
Two/Three drums of one machine kg/batch	3, 5, 10	5, 10, 20	20, 40
Diameter of drum(mm)	500, 520, 610	520, 580, 680	720, 850
Speed-adjusting range of film coating drum (rpm)	6-30	6-25	4-21
Motor power of main machine (kW)	0.55	0.75	1.1
Temperature-regulating range of hot air (°C)	Normal temperature ~ 80°C		
Filtration accuracy of hot air (μm)	0.5 mm (100000 grade)		
Motor power of air heater (kW)	0.75	0.75	1.1
Motor power of exhaust machine (kW)	2.2	2.2	3
Motor power of vibration dust-cleaning device(kW)	0.37	0.37	0.37
Motor power of peristaltic pump (kW)	0.18	0.18	0.18
Overall dimension of main machine (L*W*H)(mm)	970x800x1840	1000x950x1900	1120x1100x1840
Weight of main machine(kg)	450	500	600