

Spray Granulation Fluidized Bed Drying System

HM-SGFD-P series spray granulation fluidized bed drying system is provided air pres. by both the induced draft fan and the blower to make the material in a fluidized state. In the fluidization process, the material is stratified. The material with large particles is at the bottom of the granulation bed dryer, and the fine particles and dust are at the top of the dryer. The concentrated solution of dry materials is sprayed from the bottom or top and wrapped in fine particles and dust, making its volume and mass become larger. Because of the change in mass, the particles move downward. Driven by the heat energy provided by the hot air and the internal heating coil, the surface temperature of the wet material particles increases and the water evaporates. After evaporation, the particles form the humidity difference in internal and external, and the moisture gradually diffuses outwards, thus drying the material. The evaporated water vapour is mixed with unsaturated hot air and discharged by the cyclone. During the process of cyclone, part of the fine particles and dust in the air are recovered and continue to participate in the granulation process. The dried material moves forward under the drive of the wind, and the granulation discharged from the discharge rotary valve. The system consists of feeding device, spraying granulation fluidized bed, finned heat exchanger, cooling dehumidifier, cyclone separator, bag dust collector, centrifugal fan, discharging device, crushing and screening device, finished product conveying system, electrical system and automatic control system, etc.

Application:

- 1) Granulation and drying products with high viscosity solution, such as pharmaceutical industry, fermentation industry, food industry, sewage treatment, environmental protection, etc.
- 2) Suitable for the mother liquor of amino acid fermentation, waste liquor of fermentation, chemical fertilizer, MSG and other materials.
- 3) Used for processing paste, slurry and other difficult to dry materials containing crystal water.
- 4) Widely used in continuous large-scale industrial production.

Features:

- 1) Liquid materials can be coated, evaporated, dried and cooled in the equipment to obtain the dried products.
- 2) High density, uniform moisture, high strength, good sphericity, not easy to absorb moisture, good fluidity and other characteristics of dry products.
- 3) The product is convenient for packaging, transportation and storage; It is also easy to mix with other materials.
- 4) No dust, no peculiar smell, vacuum operation and clean site environment during granulation and drying process.
- 5) Energy recycling and utilization, low energy consumption.

Hongmao relies on the professional design, the strict production management, the fine processing procedure, provides the high efficiency and energy saving equipment system for the customer. Manufacturing factory has passed the international ISO9001 quality system certification, and with the design and manufacturing capacity of pressure vessels. Customers can choose Chinese GB, International ISO, American standard AWS, EU EN and other standards for equipment design and production according to their needs.

Technical parameter

Model	Capacity kg/h	Steam consumption kg/h	Compressed air consumption m3/min	Wind inlet temp. °C	Installed power kW
HM-SGFD500-P220	500	1600	8	95	220
HM-SGFD800-P280	800	2400	11	95	280
HM-SGFD1000-P350	1000	3000	15	95	360
HM-SGFD1200-P400	1200	2500	17	120	400
HM-SGFD1500-P550	1500	3300	22	120	480
HM-SGFD1800-P630	1800	4200	28	120	630
HM-SGFD2000-P700	2000	4500	31	120	700