

Spray Dryer



Product Introduction

The laboratory small spray dryer is mainly applicable to the production of micro particle powder in universities, research institutes and laboratories of food, medicine and chemical enterprises. It has broad spectrum applicability to all solutions, such as emulsion and suspension, and is suitable for the drying of heat sensitive substances, such as biological products, biological agricultural drugs, enzyme preparations, etc. Due to the fact that the sprayed material only experiences high temperatures when it is sprayed into mist like particles of different sizes, it only heats up instantly, which can maintain the active ingredients of these active materials from being damaged even after drying.

Product Feature

1. The entire machine is constructed from SUS304 stainless steel, offering excellent corrosion resistance.
2. A color LCD touch screen enables parameter display, including: inlet



air temperature, outlet air temperature, peristaltic pump speed, air volume, and pin cleaner frequency.

3. A nozzle cleaner (pin cleaner) is equipped. It automatically removes blockages when the nozzle gets clogged, and the operating frequency of the pin cleaner can be adjusted automatically.

4. Shutdown Protection Function: Simply press the stop button to shut down the machine. All components except the fan stop running immediately, preventing the heating elements from being burned out due to misoperation (such as forced fan shutdown).

5. The spraying, drying and collection systems are made of high-quality transparent borosilicate heat-resistant glass, ensuring that the drying process is carried out in a pollution-free environment.

6. The atomization structure adopts a two-fluid spray design. The entire machine is made of high-quality stainless steel with a compact structure, requiring no auxiliary equipment.

7. Real-time PID constant temperature control technology is adopted for drying temperature regulation, ensuring accurate temperature control across the full temperature range with a heating temperature



control accuracy of $\pm 1^{\circ}\text{C}$.

8. The feed rate is adjustable via the feed peristaltic pump, with a minimum sample volume of up to 30ml.

9. The dried finished powder has a relatively uniform particle size, with over 95% of the powder falling within the same particle size range.

Model	SD-3
Control system	Touch screen
Software copyright number	2019SR1071014
Inlet air temperature	30~300 $^{\circ}\text{C}$
Outlet air temperature	30~ 140 $^{\circ}\text{C}$
Temperature control accuracy	$\pm 1^{\circ}\text{C}$
Evaporation	1500~2500mL/ H
Feed rate	30~2500mL/H
Feeding method	Peristaltic pump
Nozzle aperture	1.0mm (Other specifications are optional)
Nebulizer form	Two-fluid
Atomizer material	304 stainless steel
Drying tower material	GG17 high borosilicate glass
Dust removal device	Optional
Dual stage cyclone collection system	Optional
Nitrogen circulation interface	Yes (upgradable nitrogen closed-loop circulation)
Anti corrosion coating for exhaust duct	No
Average drying time	1.0~ 1.5S
Air compressor	Built-in
Heating power	3KW
Total machine power	4.5KW
Overall dimensions	800×650×1500mm (Length * Width * Height)
Power requirements	220V 50HZ



