

Spray Dryer



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About us

Innova Bio-Meditech is one of the professional solution provider of laboratory and medical devices. Firmly committed to our mission of "sharing innovative bio-meditech solutions with the world", we are dedicated to innovation in the fields of Biology Project, Life Science, Pharmacy Industry and Medical Treatment.

Innova Bio-Meditech possesses a sound distribution and service network with business partners in North and Latin America, Europe, Africa and Asia-Pacific etc. We have built up a well established R&D, manufacture network with 3 centers in Qingdao, Shanghai and Suzhou. Inspired by the needs of our customers, we adopt advanced technologies and transform them into accessible innovation. This means constant effort and research, in order to more fully understand the developments of the market, INNOVA produce constantly upgraded product ranges by adding new products year after year.

The passion for science

Contents

Lab Spray Dryer

Glass Type

01

Stainless Steel Type

Pilot Spray Dryer

Integrated type

05

Split type

Lab Spray Dryer

INNOVA Lab Spray Dryer is mainly used in universities, research institutes and laboratories of food, medicine and chemical enterprises to produce micro-particle powders, and has broad-spectrum applicability to all solutions such as emulsions and suspensions, and is suitable for drying of heat-sensitive substances such as biological products, biological products, etc. Pesticides, enzyme preparations, etc., because the sprayed materials are only exposed to high temperature when they are sprayed into mist-shaped particles, so they are only heated instantly, which can keep these active materials from being damaged after drying.

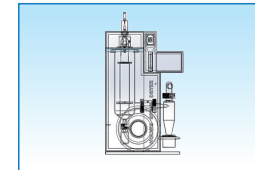
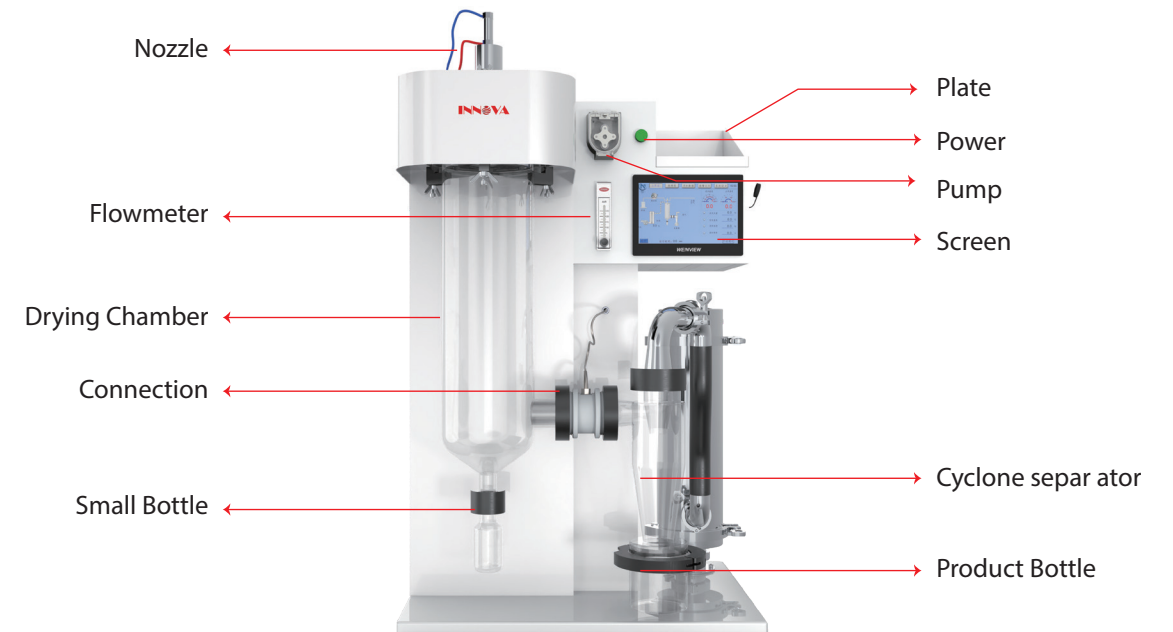


Glass Type



Stainless Steel Type

ISD-Mini (Glass type)



Design

- Desktop Mini Spray Dryer, easy to complete your operation on the laboratory bench.
- Machine buttons, thermometers, air pipes, and touch screens are all ergonomically designed, fast plugging and unplugging, and user-friendly operation.



Optional filter

- High exhaust filtration efficiency, can capture fine dust with particle size larger than 1 micron, and the air purification efficiency can reach more than 99%
- Stable operation, convenient maintenance, improved environment, recycled materials, green environmental protection



Nozzle

- The top manufacturer in the nozzle industry - American Spray Company.
- High-quality nozzles guarantee high precision and maximum service life of the equipment.



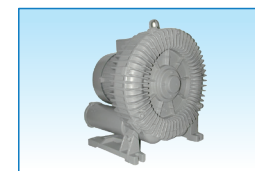
PLC

- The equipment adopts German Siemens controller, a leading brand in the field of industrial control.
- Rich control modes allow our equipment to have the richest function settings in the industry.



Panel

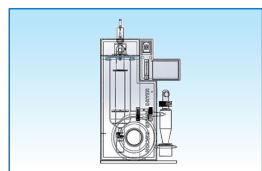
- The touch screen adopts Taiwan's excellent brand Wei Lun Tong, the touch control is accurate, and the picture performance is delicate.
- The control interface is beautifully displayed, easy to operate, and fully functional
- Added USB data export function to facilitate data storage.



Fan

- The size of the fan speed and the wind pressure will affect the material spraying effect of different products, and correspond to different product yields.
- Users can choose the best feeding method according to the material situation.

ISD-3N (Stainless Steel type)



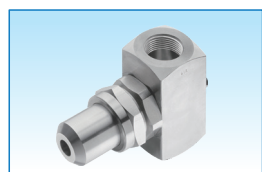
Design

- Machine buttons, thermometers, air pipes, and touch screens are all ergonomically designed, fast plugging and unplugging, and user-friendly operation.
- The sight glass is convenient for observing the process, and the wheels are easy to move.



Optional filter

- High exhaust filtration efficiency, can capture fine dust with particle size larger than 1 micron, and the air purification efficiency can reach more than 99%
- Stable operation, convenient maintenance, improved environment, recycled materials, green environmental protection



Nozzle

- The top manufacturer in the nozzle industry - American Spray Company.
- High-quality nozzles guarantee high precision and maximum service life of the equipment.
- Multiple atomization forms, users can choose the best atomization form according to the material form.



PLC

- The equipment adopts German Siemens PLC S-200 controller, a leading brand in the field of industrial control.
- Rich control modes allow our equipment to have the richest function settings in the industry.



Panel

- The touch screen adopts Taiwan's excellent brand Wei Lun Tong, the touch control is accurate, and the picture performance is delicate.
- The control interface is beautifully displayed, easy to operate, and fully functional
- Added USB data export function to facilitate data storage.



Fan

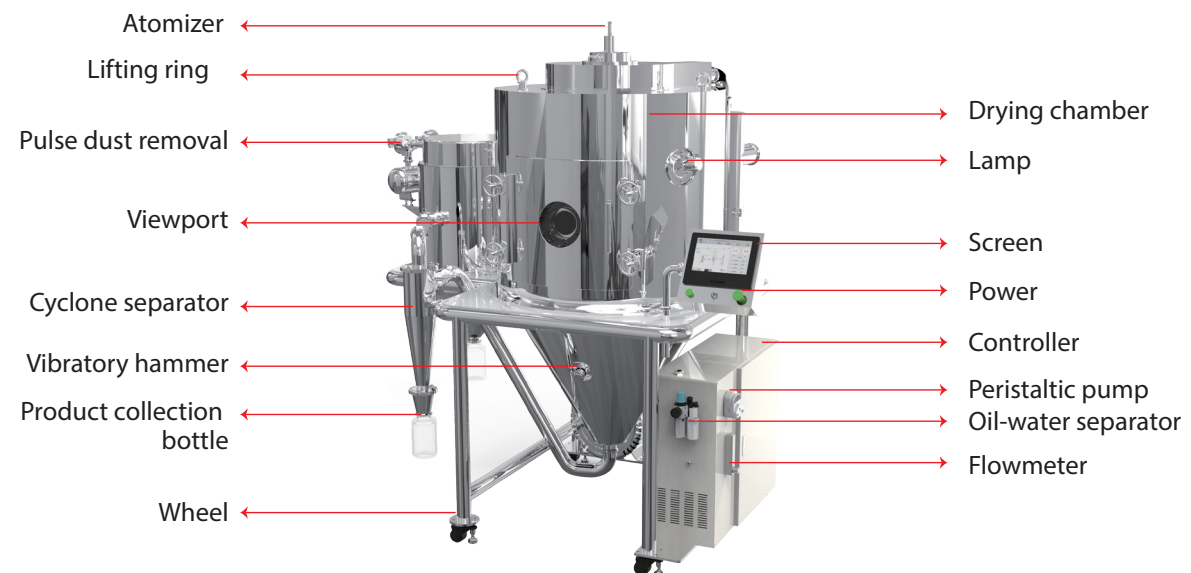
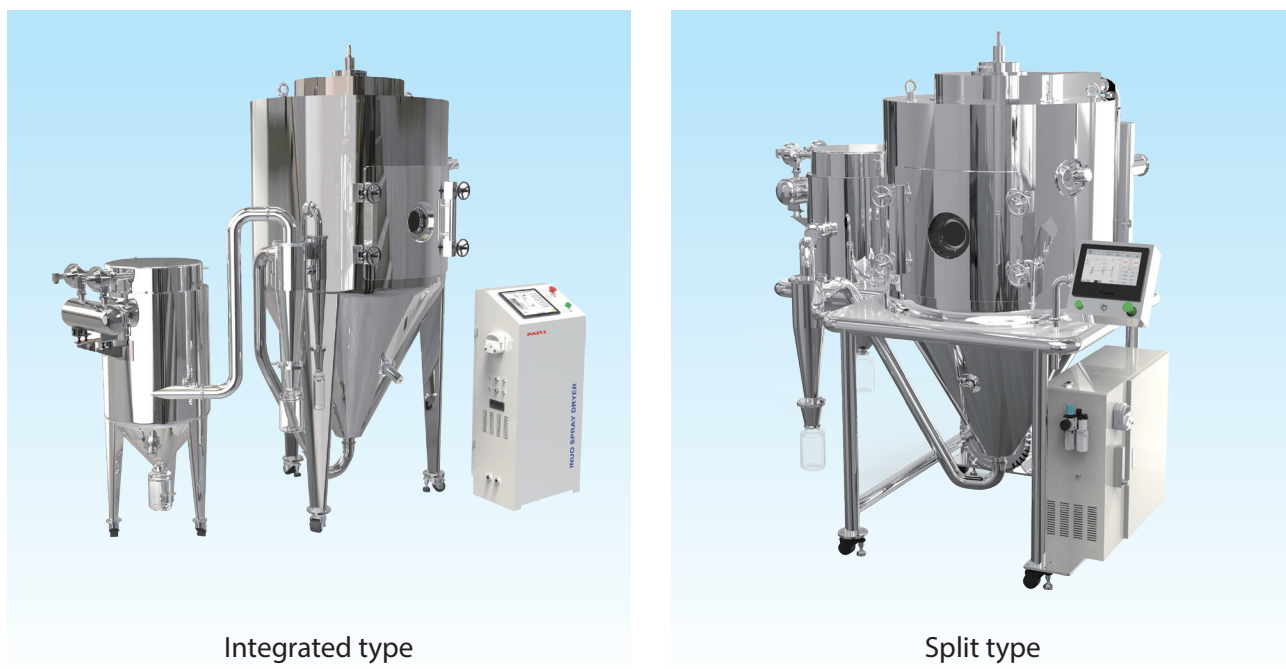
- Frequency conversion + medium pressure fan: After repeated verification by engineers, the fan speed and wind pressure will affect the material spray effect of different products, and correspond to different product yields.
- Users can choose the best feeding method according to the material situation.

Technical Parameter

Model	ISD-Mini	ISD-3N
Maximum Water Evaporation	2000mL/h	3000ml/h
Inlet air Temperature	30~250 C±1 C	
Outlet Air Temperature	30~120 C±1 C	
Fan	1.5m³/min; Delta inverter, imported fan	2.5m³/min; Delta inverter, imported fan
Electric Heater	3.0kW/AC220V; Material: 2520 special stainless steel	5KW/AC380V; Material: 2520 special stainless steel
Inlet and Outlet Air Temperature Monitoring	Taiwan PT-100 platinum resistance, intelligent PID control	
Spray System	Dual-fluid nozzle	
Average Drying Time	1.0~1.5 seconds	
Automatic Blocking Device	The frequency of automatic needle penetration is adjustable, 0~60 seconds/time	
Control System	German Siemens PLC automatic control system; 7-inch color touch screen	
Software	Display and control of inlet air temperature, outlet air temperature, variable frequency, needle frequency, etc. Data logging and export, curve analysis functions, alarms and overload protection	
Electrical Standard	Made by Schneider Electric	
Quick Release Design	Thermometer, air pipeline, power supply, all use quick plug and unplug design	
Optional	Magnetic agitator, weighing system, filter bag, etc.	
Voltage	AC220V, 50Hz	AC380V, 50Hz
Dimensions (WxDxH)	570x620x900mm	800x800x1700mm
Total Weight	60kg	150kg

Pilot Spray Dryer

INNOVA Pilot Spray Dryer (ISD-5N) suitable for research institutes and food, pharmaceutical and chemical enterprise laboratories to produce micro-particle powders. It has broad-spectrum applicability to all solutions such as emulsions and suspensions. It is suitable for drying heat-sensitive substances such as biological products, biological pesticides, and enzymes. Preparations, etc., because the sprayed materials are only subjected to high temperature when they are sprayed into mist-like particles, so they are only heated instantaneously, which can keep these active materials from being damaged after drying.



Main Features

- Mobile pilot-scale spray dryer with viewport. The viewport is easy to observe the process, and the wheel is easy to move and adapt to the operating environment.
- Machine buttons, thermometers, air pipes, and touch screens are all ergonomically designed, fast plugging and unplugging, and user-friendly operation.
- With American Spray nozzle, guarantee high precision and maximum service life of the equipment. Multiple atomization forms.
- Adopt German Siemens PLC S-200 controller.
- Frequency conversion + medium pressure fan: After repeated verification by engineers, the fan speed and wind pressure will affect the material spray effect of different products, and correspond to different product yields.
- High exhaust filtration efficiency, can capture fine dust with particle size larger than 1 micron, and the air purification efficiency can reach more than 99%.
- The complete set of electrical components is made by Schneider or equivalent first-class brand original electrical standards.
- The touch screen adopts Taiwan's excellent brand Wei Lun Tong, the touch control is accurate, and the picture performance is delicate.

Technical Parameter

Model	ISD-5N
Maximum water evaporation	5000ml/h
Inlet air temperature	30~250℃±1℃
Outlet air temperature	30~120℃±1℃
Fan	5.5m³/min; Delta inverter, imported fan
Electric heater	10KW/AC220V, Material: 2520 special stainless steel
Inlet and outlet air temperature monitoring	Taiwan PT-100 platinum resistance, intelligent PID control
Spray system	Dual-fluid atomization / Centrifugal atomization
Atomization structure	TF-Cen modular structure design, different types of atomization systems can be replaced
Hot air distributor	IN-Adv integrated structure, uniform distribution of hot air, adjustable wind angle
Average drying time	1.0~1.5 seconds
Automatic blocking device	The frequency of automatic needle penetration is adjustable, 0~60 seconds/time
Gas supply system	Quiet and oil-free, working pressure 2~6Bar, gas volume 180L/min
Control System	German Siemens PLC automatic control system; 10-inch color touch screen
Software	Display and control of inlet air temperature, outlet air temperature, variable frequency, needle frequency, etc. Data logging and export, curve analysis functions, alarms and overload protection
Electrical Standard	Made by Schneider Electric
Quick release design	Thermometer, air pipeline, power supply, all use quick plug and unplug design
Optional	Magnetic agitator, weighing system, pulse dust removal device, etc.
Voltage	AC380V, 50Hz
Dimensions (WxDxH)	1200×2100×1850mm
Total Weight	220kg