



Lab Inert Loop Spray dryer for organic solvents, 1500ml/h

PRODUCT MODEL: SD-15A  
Categories: Organic Solvent, Spray Dryer  
Tags: Organic Solvent, Small type, Spray Dryer

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Description

Inert Loop Spray Dryer SD-15A

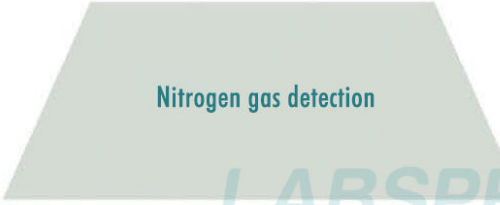
SD-15A Lab inert loop spray dryer with inert loop system for organic solvent, is self contained and supplied complete and ready for immediate operation. All major components are housed within a stainless steel cabinet and the unit can be used on a bench top or with an optional stainless steel stand. The system was designed to be stand by a keyboard, conducted by a colorful crystal screen of touch guidance mode , and allowed two modes of run: Automatic-mode, and Eye-monitored mode for the purpose of easily controlling experimental process .

EXPLOSION-PROOF SYSTEM



Explosion-proof

When the pressure is higher than 3000Pa, the pressure valve is opened, the pressure can be released, and the heating and feeding can be stopped at the same time



Nitrogen gas detection

When nitrogen is exhausted, the machine stops feeding and heating



Over-oxygen protection

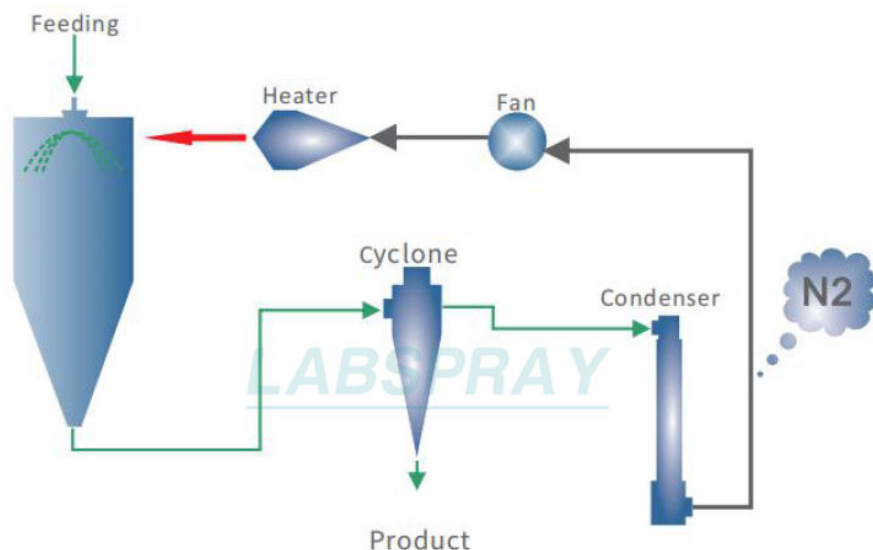
Heating and feeding will stop when the oxygen content exceeds 3%.

APPLICATIONS

SD-15A inert loop Spray dryer inert loop system for organic solution, which can be used in a wide range of applications where the production of a free-flowing powder sample is required. This technique has successfully processed materials in the following areas:Beverages • Flavours and Colourings • Milk and Egg Products • Plant and Vegetable Extracts • Pharmaceuticals • Heat Sensitive Materials • Plastics • Polymers and Resins • Perfumes • Ceramics and Advanced Materials •Soaps and Detergents • Blood • Dyestuffs • Foodstuffs • Adhesives • Oxides • Textiles • Bones, Teeth and Tooth Amalgam and many others. Most solutions and suspensions can be spray dried providing that the resulting product has the characteristics of a solid material.

PRINCIPLE

- A menu driven microprocessor controller allows the selection of inlet temperature, airflow, automatic de-blocker frequency and pump speed. The controller features an RS 232 output for connection to a PC or data logger and software allows the control and monitoring of all functions and printing of results.
- The self-priming peristaltic pump delivers the sample liquid from a container through a small diameter jet into the main chamber. At the same time an integral compressor pumps air into the outer tube of the jet which causes the liquid to emerge as a fine atomised spray into the drying chamber.
- Heated air is blown through the main chamber evaporating the liquid content of the atomised spray. The solid particles of the material, which are normally in a free flowing state, are then separated from the exhaust air flow by a cyclone and collected in the sample collection bottle. The exhaust airflow is directed through a flexible 60 mm diameter hose direct to atmosphere or to an existing extraction system.



#### ADVANTAGES

- Two modes of run: Automatic-mode, and Eye-monitored mode for the purpose of easily controlling experimental process . PLC controller, LCD touch panel control fascia with flow path of system. Using proface touchable interface display operation, operator can control temperature, airflow volume, air pressure, pump speed and de-blocker frequency.
- Spray chamber, cyclone separator, receiving tank are all made of Borosilicate glass which can resist strong acid/alk li, high temperature. It can work in a no-pollution and stable environment, and the whole process can be inspected. All the spare parts are easy to install and wash.
- Made of SUS-316 Stainless steel. Easy operating.
- To assure accurate temperature control and easy parameter adjusting, SD-15 applies PID.
- A filter has been equipped to the inlet unit to prevent the sample from contamination .
- The self-priming peristaltic pump delivers the sample liquid from a container through a small diameter jet into the main chamber to avoid secondary pollution.. To make sure the process conducted steady and smoothly, magnetic agitator is optional to make the solution well mixed.
- Narrow size distribution of particles.
- Automatic de-blocking device prevents the nozzle from becoming blocked and variably controlled
- The air compressor is no oil and don't pollute compress air. The power from receiving tank has a good flow. The sound is low than 60db, and following the GMP understands.
- Supplied complete and ready for most spray drying applications.
- Automatic de-blocking device prevents the nozzle from becoming blocked and variably controlled.
- Equipped with air filter to remove and collect fine particle s in exhausted air.

#### TECHNICAL INFORMATION

- **SD-15A comes with inert loop system and solvent recovery system like chiller Can be used for organic solvent & water solvents**
- Evaporation rate of water at inlet temperature of 250°C using
- Standard: Approximately 1500 ml/hour
- Air inlet temperature range 30°C to 250°C
- Air outlet temperature range 30°C to 140°C
- Dry Cycle time: 1.0-1.5S
- Temp. Precision: ±1°C
- Max. Sample feed: 1500mL/H
- Min. Sample feed : 50mL/H
- Packing dimensions & weights: 990×790×1480 mm 168KG, 660×430×610 mm 23kg(main-chamber/cyclone/sample collection bottle/waste collection tube), (2 packages)
- operation interface: in Chinese and English
- obturating ring: (each specification 50 respectively)
- standard: 0.7 mm jet
- **Power supply: 220V,AC,50/60Hz, 6Kw**
- **With nitrogen circulation system and online recovery system**
- **If need only to process water-based material, then SD-18A mini spray drying equipment would be choice.**