

# SD-1800F LOW TEMPERATURE LAB SPRAY DRYER

SD-1800F laboratory low-temperature spray dryer is a breakthrough made by us with efforts in spray drying technology. SD-1800F can extract natural product and juice from traditional medicine (herbal medicine) in laboratory and get powder particles of excellent liquidity at a low temperature of 110°C with a high yield. In particular, it achieves rapid material drying at low temperature and provides very convenient and safe drying method for thermo-sensitive materials, such as biological product, high carbohydrate traditional Chinese medicine natural product extract, thermolabile polymer material, heat gasification material and so on.

## FEATURES

- Entire spray drying experimental process can be completed in 110 ° C, greatly reduces the temperature of drying to solve the problems for spray drying of heat-sensitive materials.
- Color touch-screen operation: PID temperature control heating temperature, heating accuracy reach  $\pm 1^{\circ}\text{C}$ ., peristaltic pump feed rate can be adjusted at any time.
- Particle diameter of powder in normal distribution, good liquidity with low noise, in line with laboratories noise standards;
- Structure of two-fluid atomizer spray, made of high quality stainless steel materials, precision manufacturing, compact design without ancillary equipment, easy to use.
- Feed rate can be adjusted by feeding peristaltic pump, rated capacity 1800mL/h
- Spray head located in the middle of the drying chamber, can be dry in concurrent or counter-current way, can lengthen or shorten drying time according to the material characteristics, suitable for heat-sensitive materials.
- With the function of the fluidized bed;
- Can be equipped with 1-micron precision filter, effectively improve the efficiency.



## SPECIFICATIONS

| Model     | SD-1800F |
|-----------|----------|
| Power     | 4000W    |
| Voltage   | 220V     |
| Frequency | 50/60 Hz |

|                              |   |
|------------------------------|---|
| Evaporating Capacity         | 1500ml/h for water  |
| Airflow                      | 0-330 M3/h  |
| Max. Inlet temperature       | 200°C   |
| Heating power                | 3500W   |
| Temperature precision        | ±1°C  |
| Compressed air               | 4.2M3/h, 2-5bar   |
| Nozzle jet                   | 0.7mm standard/(0.5/0.75/1.0/1.5/2.0mm available)                               |
| Nozzle type                  | Two fluid nozzle  |
| Possible particle size range | 1-25µm  |
| Mean Residence time          | 1.0-1.5 sec   |
| Operation mode               | Automatic/Manual  |
| Max. Sample feed             | 1800ml/hr   |
| Minimum sample volume        | 30ml  |
| Seal of cyclone/cylinder     | Silicone  |
| Inlet temperature            | 105-200°C   |
| Cyclone separator material   | SUS-304 Stainless steel   |
| Body material                | SUS-304 Stainless steel   |
| Spray chamber material       | SUS-304 Stainless steel & borosilicate glass                                    |
| collection bottle material   | SUS-304 Stainless steel   |
| Sound                        | <60db   |
| Dimensions                   | 1100*1000*1200mm  |
| Weight                       | 115KG   |
| Display                      | 7-Inch LCD can display<br>Heat, Spray, Pump, Air pressure, de-blocker frequency |
| Thermal protection           | Blower does not stop until temp <90°C   |
| Deblocking                   | Automatic   |
| Atomizer material            | SUS 316 Stainless steel   |


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