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SPRAY DRYERS for particle formation & drying



SPD-D-111



SPD-M-111



SPD-P-111

Pharmaceuticals | Chemicals | Polymers / Resins | Food Industry | Natural oils / oleoresins / Fish Oils
Fragrances / Perfumes | Flavours | Soaps & Detergents | Textiles | Dyes & Pigments
Spices | Ceramics | Beverages | Metallurgical



Spray drying is the most widely used industrial process involving particle formation and drying. It is highly suited for the continuous production of dry solids in either powder, granulate or agglomerate form from liquid feed stocks as solutions, emulsions and pumpable suspensions. Therefore, spray drying is an ideal process where the end-product must comply to precise quality standards regarding particle size distribution, residual moisture content, bulk density, and particle shape.

Spray drying involves the atomization of a liquid feedstock into a spray of droplets and contacting the droplets with hot air in a drying chamber. Evaporation of moisture from the droplets and formation of dry particles proceed under controlled temperature and airflow conditions.

Applications :

- ◆ Calciums / Carbonators / Aluminum Chloride, Zeolite etc.
- ◆ Misc polymers and resins for allied industries
- ◆ Milk, milk derivatives, soyabean products, tea, coffee, instant foods, baby foods, weaning Foods, egg products, chocolate etc.
- ◆ Palm / Orange / sandalwood/ ground nut /Cod liver oil etc.
- ◆ Encapsulated fragrances / perfumes like day to day body odours – Brut, Eu-de-cogn, Musk, Lavender, Rose, Sandalwood etc.
- ◆ Encapsulated Flavours – Natural synthetically Developed etc.
- ◆ Cloth washing powders
- ◆ Textiles chemicals, encapsulated, fragrant dyes, heat / electrical protective dyes etc.
- ◆ Reactive / disperse dyes for cloth dyeing & Engineering pigments, optical whiteners etc.
- ◆ Mono / mixed spices etc.
- ◆ Quality Ceramics with special electro-mechanical properties for tiles, ceramic, Ortho-dentistry etc.
- ◆ Ready to make soft drinks / cocktails etc.
- ◆ Specialty alloys, precious metals etc.

Technical Data:

- ◆ Evaporation Rate: Approx. 1Lit./Hr. (H₂O)
- ◆ IN Air Temperature: Ambient to 280° C.
- ◆ Heater Capacity: 3 KW.
- ◆ Power Supply: 220-240 VAC 50 Hz Single Phase Max.15A.
- ◆ MOC: S.S with dull pharma finish.
- ◆ Aspirator Blower---> 0.5HP X 2800 RPM 3 phase FLP motor.
- ◆ Fresh Air Filter ---> Pre Filter 5 Microns. Hepa Filter 0.3 Microns.

Optional Features:

- ◆ Counter current Spray Nozzle.
- ◆ PC Software.
- ◆ Air Compressor(Oil free).
- ◆ Ultra Sonic Nozzle (120 KHz).
- ◆ Inert Loop for Solvent Recovery.
- ◆ Hot Melt System.

Features:	SPD-D-111	SPD-M-111	SPD-P-111
◆ Plug-in Model.	✓	✓	✓
◆ Portable on Wheels	✗	✗	✓
◆ Aseptic GMP Unit.	✓	✓	✓
◆ Aqueous / Solvent feed solutions.	✓	✓	✓
◆ Co-Current Spray Nozzle.	✓	✓	✓
◆ Twin (High Efficiency) Cyclons.	✓	✓	✓
◆ PLC based with 7" Touch screen.	✗	✗	✓
◆ Online Data logging / Temperature Graphs.	✗	✓	✓
◆ Two way communication with PC / Laptop & HMI.	✗	✓	✓
◆ 9" Chamber Dia.	✓	✓	✓
◆ Digital Vacuum / Pressure Indicator.	✓	✓	✓
◆ Capacity 1 Lit./Hr. (H ₂ O)	✓	✓	✓
◆ Built-in Hotplate & Magnetic stirrer controlled through inbuilt controller.	✓	✓	✓
◆ Two way communication with PC / Laptop & Machine through RS 485 port.	✗	✓	✓
◆ Built-in Mechanical Stirrer controlled through inbuilt controller.	Optional	Optional	Optional
◆ Dimensions in mm (L x W x H)	650 x 650 x 1250	650 x 650 x 1250	670 x 650 x 1600

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