

Pilot Spray Dryer



PSD - 00

- More than 35 plants supplied & installed successfully
- Exported to more than 9 countries



PSD - 02



PSD - 04

| Features ↓ | Models → | PSD 00 | PSD 02 | PSD 04 |
|---|-------------|--|-------------------------------------|-------------------------------------|
| Evaporation Capacity (in kg / hr) H ₂ O | | 2-5 | 5-10 | 10-15 |
| M.O.C | | SS 316 Also available in Flame Proof Construction for evaporating solvents | | |
| Supporting Structure | | Stainless Steel with wheels for easy mobility | Stainless Steel | Stainless Steel |
| Air Flow (Max) | | 200 cu.m./hr | 450 cu.m./hr | 800 cu.m./hr |
| Heater Type | | Electrical | | |
| Inlet Temp. | | Typical 200°C, Maximum 300°C | | |
| Heating Power (Max) | | 12 KW | 20 KW | 27 KW |
| Atomization | | Pressure Nozzle or Two Fluid Nozzle | Pressure Nozzle or Two Fluid Nozzle | Pressure Nozzle or Two Fluid Nozzle |
| Pressure Nozzle Diameter | | 0.75mm | 1mm | 1.4mm |
| Compressor Pressure (in case of Two fluid nozzle) | | 8 bar (max) | 8 bar (max) | 8 bar (max) |
| Dimensions (LxWxH) | | 1600mm x 900mm x 2200mm | 3000mm x 1500mm x 3000mm | 4000mm x 2000mm x 5000mm |

Pilot Spray Dryer

M.O.C:

- Stainless Steel including the supporting structure (skid mounted) with castor wheels.
- GMP / Pharmaceutical standards are observed in manufacturing like avoiding crevasses, smooth finish, guards provided for electric motors, use of food grade silicon gaskets etc.

Operations:

- Co-Current & Counter Current.

Powder Collection:

- Spray Dried powder can be collected under cyclone as Single Point Discharge or optionally under chamber and cyclone as Two Point Discharge system. This gives flexibility to check particle size under chamber and cyclone.

Atomization:

- Two types of nozzle system are provided i.e. Pressure Nozzle and Two Fluid Nozzle

Features:

- Both exhaust and supply blowers are provided so the drying chamber is maintained under a slight vacuum hence minimizing powder loss.
- A cleaning door is provided on the main chamber for ease of cleaning
- The spray dried powder samples produced will be very much representative as of any industrial size spray dryer and hence the plant can also be used for producing small batches for sampling or for scale up
- Optional Programmable Logic Control (PLC) system can also be provided.
- Optionally available in Flame Proof construction for evaporating solvents instead of water using nitrogen.

Applications:

- Spray drying 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.



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