



# Labultima

## Spray Dryers



### Spray Dryer

Features :

- ◆ Aseptic GMP Unit
- ◆ Solvent / Aqueous Feeds
- ◆ Co - Current Spray
- ◆ Twin Cyclones
- ◆ PLC / Touch Screen Operation
- ◆ RS 232 / 485 port
- ◆ Capacity Range From 1.5 kg/hr Water Evaporation Rate
- ◆ A Total Plant On Wheels With Best Yields



### Our Activities:

Design, Manufacture & Supply of Precision Laboratory Spray Driers and Accessories in allied R & D fields like Pharma, Dyes & Pigments; Food Flavors, Soaps & detergents, Ceramics etc

### Contract Research:

Product Development support to develop a particle of desired analytical properties in state-of-art in house laboratory.

### Brand Position:

Proven, well accepted global presence with exports to USA, UK & Asian countries with FDA Compliance at International Standards.



## Add On / Upgradeable / Compatible

### Features :

- ◆ Counter Current Spray
- ◆ Spray Congealing
- ◆ Hot Melt System
- ◆ N2 Inert Loop
- ◆ Magnetic Stirrer / Hot Plate
- ◆ Mobile Station
- ◆ Ultrasonic Spray Nozzle
- ◆ Teflon Membrane Scrubber
- ◆ Teflon Tube Peristaltic Pump
- ◆ Teflon Membrane Absolute Filter
- ◆ Spray Drier Software
- ◆ US FDA 21 CFR Part 11 Compliance Software



## Built-in Ultrasonic Spray System

### Features

- ◆ Most Versatile / Reliable / Consistent
- ◆ For R & D & Industrial use.
- ◆ With Highest Precision – Controlled – environmental friendly liquid atomization in desired nano globules.
- ◆ Produce soft spray with drastic reduction of Over Spray results into the best economics for precious feeds.
- ◆ Least atmospheric contamination.
- ◆ Best atomizing device to handle lowest feed rates.
- ◆ A continuous assured performance without clogging for Critical manufacturing process.
- ◆ Can select the desired precise particle formation & spray angle.
- ◆ Made from "No Contamination In Process" material of construction – i.e. Titanium.



## N2 Inert Loop:

### Features

The inert loop is used for spray drying under inert atmosphere of Nitrogen Gas to avoid oxidation of the produce under controlled conditions.

The Functions are:

- ◆ To control oxygen ppm in re-circulated gases to the set desired value.
- ◆ To condense – remove solvent vapors from the gases to be re-circulated.
- ◆ To control the relative humidity & temperature of the gases to be re-circulated.



## Teflon Membrane Auto De-Dusting Scrubber

### Features

- ◆ Stabilized Pore Configuration 1 – 3 Microns
- ◆ Hydrophobic For Venting
- ◆ High Retention Efficiency
- ◆ Non Clogging Characteristics
- ◆ Highly Effective Filter Media
- ◆ Ultrapure – Chemically Inert
- ◆ Compatible With All Solvents, Acids, Alkalis
- ◆ Suitable Up to Gas Temperatures of 2040 C
- ◆ Self Supporting Media
- ◆ Non Stick Nature
- ◆ Can Be Sterilized With Steam Or Bactericidal Solution
- ◆ Washable & Reusable

