CERTIFIED ISO 9001:2015 COMPANY

MSME
सूक्ष्म, लघु एवं मध्यम उद्यम
MICRO, SMALL & MEDIUM ENTERPRISES

TSPS
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www.technosearchprocess.com

Laboratory Nano Spray Dryer

Nano Spray Dryer for Nano Particle Generation & Drying

www.technosearchprocess.com

Features:

1. PLC based with 4.3" touch screen.
2. Syringe Pump for Precision Feed
3. Online data logging and temperature graphs.
4. Two-way communications with PC, Laptop and HMI.
5. Provided with digital vacuum and pressure indicator.
6. Sample Protection with monitoring of Outlet Temperature and Temperature of the sample.
7. SS with dual Pharma finish.
8. Compact Design with ease of cleaning post usage.

Technical Specifications:

- Evaporation Rate: Approx. 400ml./Hr.(H20)
- Inert Air Temperature: Ambient to 130°C
- Heater Capacity: 3KW.
- Power Supply:
- 220-240 VAC 650Hz
- single Phase Max.15A
- MOC: S.S with dull pharama finish
- Aspiration Blower: 0.5HP x 2800RPM 3 phase FLP motor.
- Fresh Air Filter:
- Pre Filter 5 Microns.
- Hepa Filter 0.3 Microns.
- Nozzle operating Frequency – 120 KHz
- Nozzle Tip – Titanium Alloy 6AI – 4V
- Max. Oprating Temperature – 130° C (Inlet Air Temperature).
- Droplet size - 120KHz Nozzle < 20 to 25 microns*

*Droplet size will depend on flow rate, Viscosity & Liquid Media.

Technical Specifications For Ultrasonic Spray Nozzle & Generator

Ultrasonic Spray Nozzle

Sr. No.	Parameter	Value
1	Operating frequency	120 KHz ±10%
2	Maximum power consumption	20 W
3	Normal power consumption (Subject to flow rate and solution viscosity)	2 to 7 W
4	Maximum operating temperature	65°C
5	Ultrasonic transducer Material	Titanium grad-5
6	Transducer enclosure	SS316
7	Liquid inlet	SS316 capillary tube of size 1/8"od & 1.5mm id
8	Liquid Input flow rate-Minimum	0.8ml/min
9	Liquid Input flow rate-Maximum	3 ml/min
10	RF Input (output from nozzle drive system)	Gold plated SMA connector
11	O ring (To Isolate transducer from external environment)	Viton
12	Temperature sensor to monitor transducer temperature	K Type Thermocouple, Measuring range upto 700°C
13	Air inlet and outlet for cooling purpose required during operation of nozzle to maintain operating temperature below 65°C	Brass with Crome Plating
14	Air Pressure	Between 1 to 2 Kg/cm2

Ultrasonic Generator

Sr. No.	Parameter	Value
1	Operating frequency	120 KHz ±10%
2	Power Supply	Inbuilt with nozzle drive system
3	Maximum power	50 W
4	Maximum operating temperature	65°C
5	RF output	Bulk head BNC connector
6	RF coaxial cable (BNC to SMA)	RG316, 50Ω, 2 meter
7	LCD display	Alphanumeric 16 x 2
8	Key board to put on & off power to nozzle	4 Keys Membrane keyboard
9	Power on switch	15 Amps Elcom Make
10	Operating voltage	230v/50Hz AC ±10%
11	Fuse	1 Amp Slow Blow + extra 1 Amp
12	3 Pin Mains chord	5 Amps, Elcom Make
13	Future Provision for Temperature sensor Input	2 pin Mini round shell BNC connector

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