MEHROTRA®

Biotech

Smart Technology. Trusted Protection.



Manufacturer of Laboratory Equipment / Custom Solutions

WHAT WE DO?

Mehrotra Biotech Pvt Ltd has been established with an aim to contribute to the enhancement of medical-hospital, pharmaceutical, biotechnological, and general laboratory services through the provision of high-quality innovative solutions, ensuring an improved quality of life and well-being for society at large.

Our primary objective is to deliver customized solutions that precisely align with the unique requirements of our customers. To achieve this, our dedicated functions including engineering, R&D, manufacturing, and customer service are focused on each technology within Mehrotra Biotech's area of expertise:

- We offer solutions and equipment for clean air technology, encompassing both horizontal and vertical laminar flow cabinets, biological safety cabinets, and laminar flow systems.
- Our portfolio includes solutions and equipment for advanced sterilization utilizing Autoclaves, Ovens, and incubators.
- We specialize in solutions and equipment employing biological containment technology, such as containment isolators and sterile isolators.
- Additionally, we provide solutions and equipment utilizing freeze drying and vacuum drying technology, ranging from laboratory freeze dryers to GMP freeze dryers.

By offering these comprehensive solutions, we aim to continually improve and advance the various sectors we serve, ensuring the highest standards of quality, safety, and efficiency in medical and laboratory practices.

"Our aim is to provide tailor-made solutions in strict accordance to the needs of customers."

OUR MISSION

Our mission is to empower individuals and communities through innovative solutions and exceptional service. We are committed to providing high-quality products and services that address the needs of our customers and contribute to advancements in scientific and medical research. Guided by our core values of integrity, collaboration, and social responsibility, we strive to make a positive impact on society, while prioritizing environmental sustainability and community healthcare. Through our dedication to excellence and the expertise of our team, we aim to be a trusted partner in shaping a healthier and more prosperous future for all.

OUR VISION

Our vision is to be a leading innovator and catalyst for positive change, creating solutions that transform lives and shape a better future. With a commitment to excellence, creativity, and social impact, we strive to revolutionize Biomedical research & Pharmaceutical industry through cutting-edge design, forward-thinking strategies, and meaningful collaborations.

OUR CERTIFICATIONS









CDSCO



ISO 13485

VACUUM FREEZE DRYER



Freeze-drying is a drying technique that utilizes the principle of sublimation. It involves rapidly freezing the material to be dried at low temperatures and then, under the right vacuum conditions, allowing the frozen water molecules to directly sublime into water vapor and escape. The material remains in a low-temperature (frozen) state throughout the drying process, with ice crystals evenly distributed throughout. The sublimation process does not lead to concentration due to dehydration, thus avoiding side effects such as foaming and oxidation caused by water vapor. The dried material retains a porous, sponge-like structure with virtually unchanged volume and dissolves easily in water to revert to its original state. This process minimizes the denaturation of the material in terms of physicochemical and biological properties to the greatest extent possible.

Application Fields



Control System



☑ One-click operation for speed and simplicity

A 5.4-inch LCD touch screen displays important parameters simultaneously, with numerical values color-coded to correspond to their respective statuses, making it clear at a glance.

☑ Thermal electromagnetic overcurrent short circuit protection

Ensures safer and more stable equipment operation.

☑ Proactive reminders

Equipment maintenance time, vacuum pump oil change time, and ambient temperature monitoring alerts.

☑ Make freeze-drying more scientific

Optional co-crystallization point detection devices and endpoint judgment detection systems can be equipped.

Drying Chamber



☑ **Detachable drying chamber**

Significantly reduces the probability of damage caused by the overall chamber weight being too heavy.



☑ **The upper cover is made of anodized aluminum with corrosion-resistant**

High-transparency acrylic drying chamber, which has good thermal radiation conduction and reserved 6/12 external valve interfaces.



☑ **316L Stainless T-Frame**

24 independent exhaust ports, individually controlled, suitable for multiple users, and improve usage efficiency.

Cold Trap & Condenser Coils

Large opening and passage design

Gases can quickly pass through the condenser coils to be captured. The condenser coils are placed inside the cold trap, increasing the condensation area and effectively preventing external dew formation.



Standard equipment with Teflon anti-corrosion coating

316L stainless steel, fully equipped with Teflon anti-corrosion coating, capable of freeze-drying organic solvents and various corrosive samples.

Sample Shelves



Taking and Placing in Layers, More Convenient

Each shelf can be placed and taken freely without manual work. The height of each shelf can be adjusted freely.

Special Hole Position for Centrifuge Tubes

Conductive to the drying of samples in centrifuge tube containers.

Freeze-Drying Organic Solvent

316L stainless steel stackable sample shelves, capable of freeze-drying organic solvent and various corrosive solvents.

Refrigeration System

Efficient Refrigeration System

- Secop compressor for reliable and powerful cooling performance.
- Copper plate heat exchanger maximizes heat dissipation efficiency.
- Advanced refrigeration technology enables the cold trap temperature to drop from ambient to below –80°C within 2 minutes.
- Class A temperature sensor ensures high accuracy and minimal error.
- Comprehensive detection and alarm system alerts in case of high pressure, refrigeration failure, or abnormal operation, ensuring safe and stable performance.



Vacuum System









Pirani Vacuum Sensor

Equipped with an automatic temperature compensation control unit, the Pirani Vacuum Sensor ensures precise detection even in low-temperature environments.

CKD High Vacuum Electromagnetic Control Valve

Features low heat generation, minimal noise, and exceptional long-term durability.

Stainless Steel Flexible Vacuum Tube

Corrosion-resistant and designed for longevity, ensuring consistent performance over time.

Fully Automatic Pressure Relief and Drainage

Prevents damage to samples and sensors by eliminating unstable manual pressure relief airflow.

Laboratory Freeze Dryer T Series





Laboratory Freeze Dryer T Series, feature a compact structure that can effectively save laboratory space, offering a small footprint with great capacity.

Model No	MBFD-T 7003	MBFD-T 7006	MBFD-T 9006
Ice Condenser Capacity	3 kg	6 kg	6 kg
Ice Condenser Temperature	–70 °C	–70 °C	–90 °C
Cold Trap Volume	5 L	10 L	10 L
Freeze-Dried Chamber	Bell shape (standard configu-ration)	Multi-manifold type	T-shaped frame type
Sample Shelf	**Φ200** mm, single layer area 0.03 m² (3–5 layers available)	**Φ260** mm, single layer area 0.055 m² (3–10 layers optional)	• Electric heating/manual cap-ping optional
Vacuum Pump	Extreme vacuum 5×10□² mbar with pumping capacity of 8 m³/h	Optional pump of various types	Optional pump of various types
Oil Mist Filter	Standard configuration	Standard configuration	Standard configuration
Vacuum Pump Connection Pipe	Single forming stainless steel flexible pipe	DN16 ISO-KF	DN16 ISO-KF
Anti-Corrosive Treatment	Cold trap, condensing coil all equipped with PTFE anti-corrosion treatment as stand-ard. Suitable for freeze-drying organic solvents.	Same	Same
External Valve	6 pieces / optional	12 pieces / optional	24 pieces / optional
Eutectic Point Detection Sys-tem	Support / Optional	Support / Optional	Support / Optional
Data Output Analysis	Support / Optional	Support / Optional	Support / Optional
Power	0.6 kW	1.1 kW	1.5 kW
Size (W×D×H)	420×545×455 mm	510×570×500 mm	—
Net Weight	50 kg	55 kg	65 kg
Voltage	220 V, 50/60 Hz	220 V, 50/60 Hz	220 V, 50/60 Hz





Laboratory Freeze Dryer F Series, with high water vapour capture capacity, offer efficient freeze drying.

Model No	MBFD-F 7009	MBFD-F 9009	MBFD-F 7012	MBFD-F 9012
Ice Condenser Capacity	9kg		12kg	
Ice Condenser Temperature	-70 °C	-90 °C	-70 °C	-90 °C
Cold Trap Volume	15L		20 L	
Freeze-Dried Chamber	Bell shape (standard configuration) Multi-manifold type T-shaped frame type			
Sample Shelf	**Φ260** mm, single layer area 0.055 m² (3–10 layers optional) • Electric heating/manual capping			
Vacuum Pump	Extreme vacuum 5×10□3 mbar with pumping capacity of 8 m³/h / Optional pump of various			
Oil Mist Filter	Standard configuration			
Vacuum Pump Connection Pipe	Single forming stainless steel flexible pipe / DN16 ISO-KF			
Anti-Corrosive Treatment	Cold trap, condensing coil all equipped with PTFE anti-corrosion treatment as standard. Suitable for freeze-drying organic solvents.			
External Valve	12 pieces / 24 pieces			
Eutectic Point Detection System	Support / Optional			
Data Output Analysis	Support / Optional			
Power	0.9 kW	1.5 kW	1 kW	1.6kW
Size (W×D×H)	525x570x1080mm			
Net Weight	80 kg	85 kg	82 kg	87kg
Voltage	220 V, 50/60 Hz			

OUR CLIENTS

Government Institutions

- Central Drug Research Institute, Lucknow.
- Central Institute of Medicinal and Aromatic Plants, Lucknow.
- Indian Vetnary Research Institute, Bareilly.
- Indian Institute of Toxicology Research, Lucknow.
- Institute of Nuclear Medicine and Allied Sciences, Delhi.
- HPCL, Bangalore.
- King George Medical University, Lucknow.
- Sanjay Gandhi Post Graduate Institute of Medical Sciences, Bareilly.
- Post Graduate Institute of Medical and Research, Chandigarh.
- All India Institute of Medical Sciences New Delhi
- AIIMS RISHIKESH
- NBRI Lucknow
- National Institute of Virology , Pune
- FIND Delhi
- Karnataka Medical Supplies Corporation.
- Regional Forensic Science Lab New Delhi
- Institute Of Food Security, Food Corporation Of India, Haryana
- AIIMS Raipur
- CSIR- Bharteeya Petroleum Sansthan, Dehradun
- AIIMS Bhubneshwar
- AIIMS Raebareli
- Gujrat Forensic Science University
- IIT Ropar
- IIT BHU
- IIT Kanpur
- Banaras Hindu University
- HPCL-Mittal Energy Limited
- Maharashtra Pollution Control Board
- Darbhanga Medical College
- Many More.....

Private Institutions

- Dr, Reddy's Laboratories Hyderabad.
- NATCO Pharma, Hyderabad.
- Syngene International Bangalore
- FDC India Mumbai
- Bharat Serum
- CADILA
- CIPLA
- ACTREC, Mumbai
- Sysmax Laboratories Mumbai
- Reliance Life Science Mumbai
- LVPEI Hyderabad
- MSN Laborotories Hyderabad
- Larsen and Toubro Limited
- Siemens Healthcare
- Avaca Pharma
- Glochem Industries
- Pinnacle Lifescience
- Raghav Lifecsiences Hyderabad
- Abro Pharma
- Sun Pharma
- Gland Pharma Hyderabad
- Macleods Pharma
- Pannacea
- Lupin Limited
- Meyer Organics
- Sucantis
- Indian Immunologicals Ltd., Hyderabad
- Swati Spentos
- Mankind Pharma
- India Pesticides Ltd, Lucknow
- Quest Pharma, Nepal
- Many More.....

MEHROTRA Biotech



















BHARAT SERUMS & VACCINES LIMITED



























LUPIN





INDIAN IMMUNOLOGICALS LIMITED









Telstar

BIO-Optima & BIO II Advance Plus
Class I & II Biological Safety Cabinets



LyoQuest
Laboratory Freeze Dryer



Lyo-Beta Mini
Benchtop Laboratory Freeze Dryer



JP SELECTA SPAIN

KW APPARECCHI SCIENTIFICI

Autoclaves



Centrifuge



Shock Freezer for
Plasma on Contact



Sümer

Sterilizer
Devices



Washer
Disinfectors



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MEHROTRA Biotech
Mehrotra Biotech Pvt. Ltd.
M&M TOWER B-22 23, VIBHUTI KHAND, GOMTI NAGAR, LUCKNOW- 226010
Tel + 91- 9838203524,9838203399, 9769173005
E-mail: sales@mehrotrabiotech.com, service@mehrotrabiotech.com.
Website: www.mehrotrabiotech.com

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