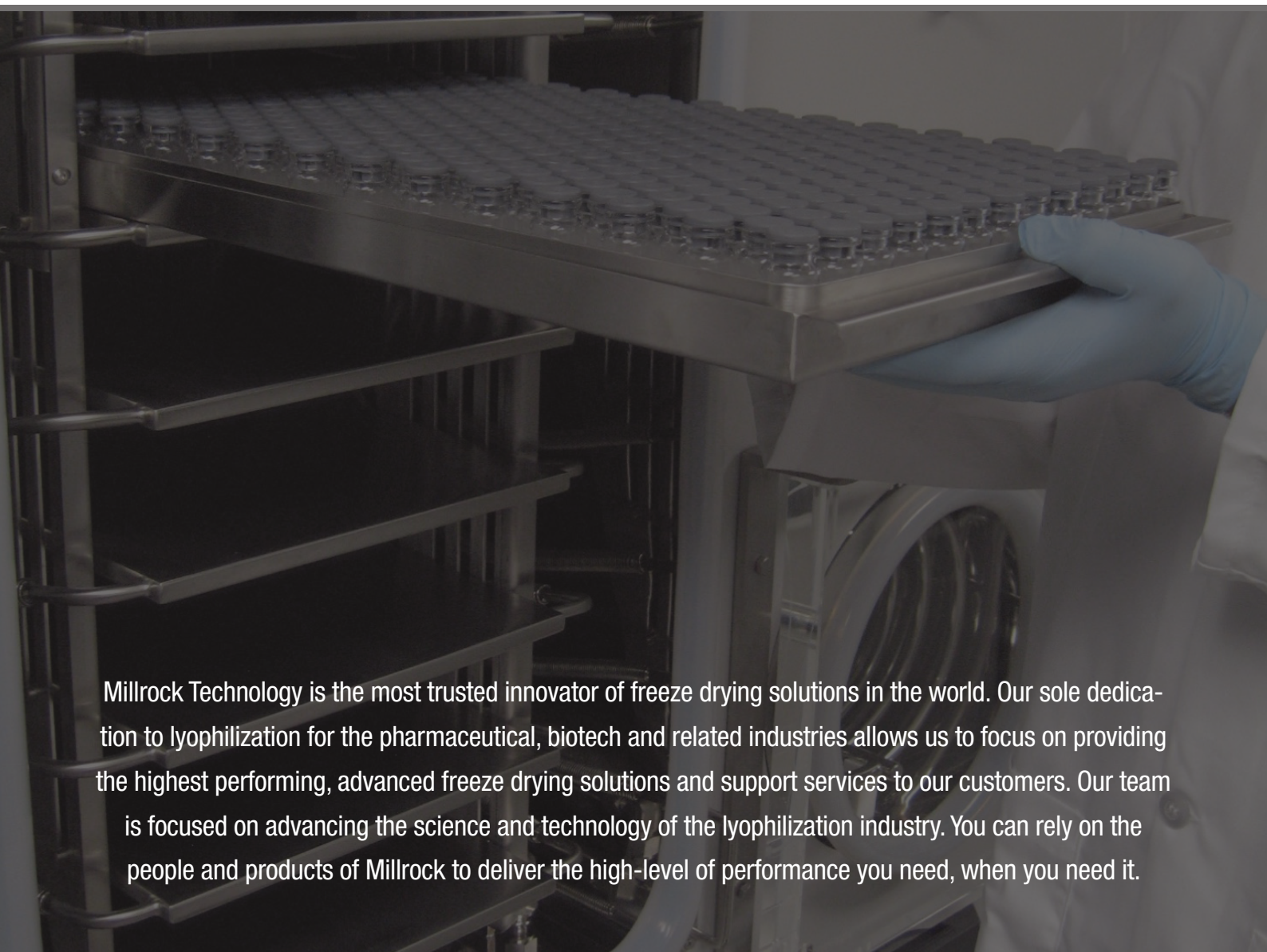


## TRUST THE MILLROCK *DIFFERENCE*



Millrock Technology is the most trusted innovator of freeze drying solutions in the world. Our sole dedication to lyophilization for the pharmaceutical, biotech and related industries allows us to focus on providing the highest performing, advanced freeze drying solutions and support services to our customers. Our team is focused on advancing the science and technology of the lyophilization industry. You can rely on the people and products of Millrock to deliver the high-level of performance you need, when you need it.

845-339-5700 | [sales@millrocktech.com](mailto:sales@millrocktech.com)



## **FREEZE DRYING IS OUR *FOCUS***

Millrock Technology focuses on one technology and one market, which allows us to be specialized in freeze drying and market application needs. In fact, we pride ourselves in product and application knowledge. Every person at Millrock who comes in contact with customers is cross-trained in all areas of the business, and is well-versed in the competition's equipment as well. Our sales and service team are dedicated to understanding how our customers are actually using products when in the field to ensure product performance in real-life scenarios.

## **PERFORMANCE IS OUR *PROMISE***

Millrock Technology employs an engineering staff to ensure our products are more robust and reliable than the competition. Our engineers partner with customers to truly understand their challenges and design product around these specific needs. We understand that customers are not always freeze drying in the “perfect scenario”. Millrock Technology products are designed with the customers’ real-world challenges in mind, and every component is designed with a purpose. From the coils to compressors, all product components are high-quality and right for the job. We significantly surpass our own specs which are the best in the industry.



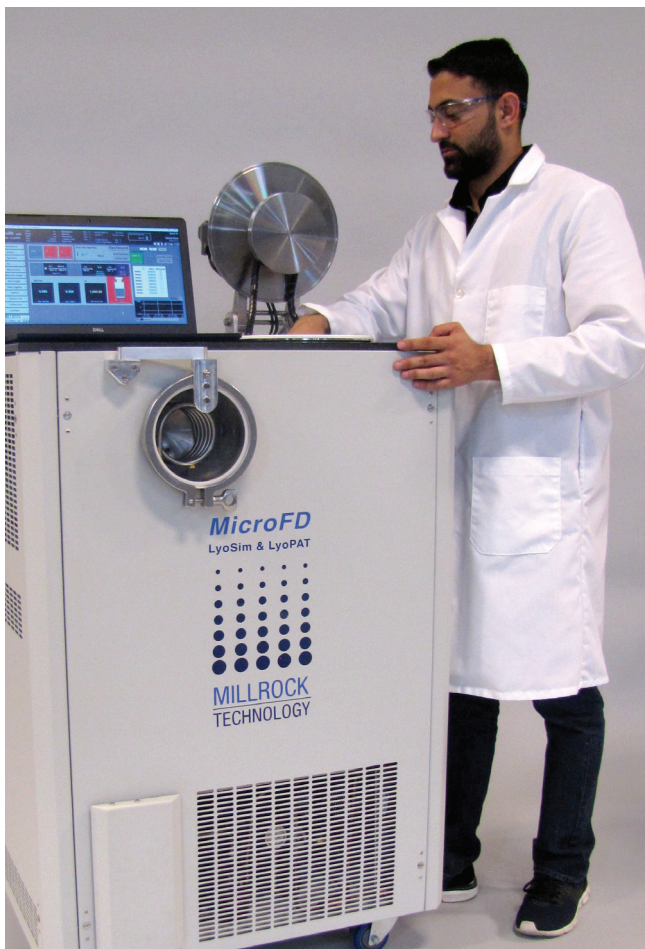


## CUSTOMERS ARE OUR *PRIORITY*

Customer service is not a department at Millrock. It is the very foundation of our philosophy, mission and culture. Every department and every person in our company is committed to our customers as their number one priority. We are dedicated to offering high-performance products along with the most responsive support services in the industry for the entire life cycle of our products. Most importantly, we know that our customers are best served when we listen to your needs and work in partnership to create the proper solution for your business.

## FREEZE DRYING IS IN OUR *BLOOD*

As the only third generation freeze dryer company in the world, we are passionate and driven to advance the science and technology of the lyophilization industry for our customers. Our team is solely focused on advancing the science of freeze drying for the pharmaceutical, biotech and related industries, working in partnership with our customers to innovate products that deliver performance and optimize their processes.



# INNOVATION IS OUR *PASSION*

Every day we are engineering new technologies that will change the freeze drying industry. These innovations are designed to enhance our customers' experience, allowing customers to produce their products with a higher yield and decreased cycle time, reducing processing risks. As a result of our combined experience and purposeful approach to engineering, our equipment offers the best price performance.

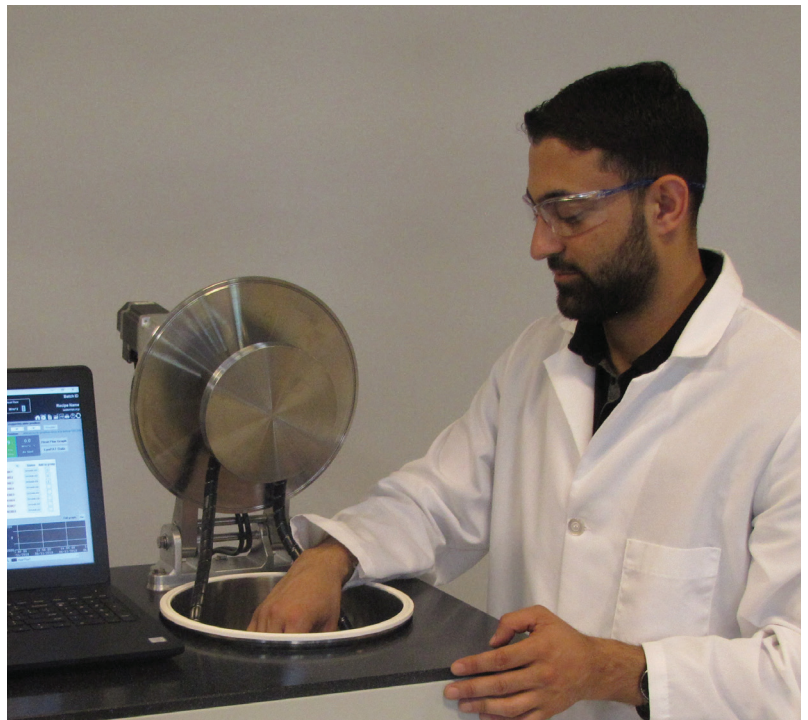
## MicroFD® With LyoSIM® and LyoPAT®

### Proven to Develop Transferable Protocols!

The MicroFD with LyoSIM and LyoPAT does more than larger lab freeze dryers do and with fewer vials. The MicroFD provides all critical process parameters AND provides heat flux measurement utilizing AccuFlux®. Using significantly fewer vials means you use less active pharmaceutical ingredient, saving you time and money with extensively shorter set-up and downtime.

### Special Features

- Takes the guesswork out of protocol development
- Uses less of your valuable product for R&D
- R&D and cycle transfer with as few as 7 vials
- Determines Kv, Rp and other critical process parameters







## Pro Series: Revo Pro and Magnum Pro

Offering innovation for your lab scale freeze drying needs.

### Advanced Control Technology

Millrock Technology offers robust, technologically innovative, advanced freeze dryer controls for all of your process needs, including:

- **Opti-Dry® Freeze Drying Control.** This robust control system includes multiple programming steps in freezing and primary drying with final hold set points in secondary drying. This “standard” software should be familiar to anyone currently using a tray-type freeze dryer.
- **LyoPAT® New Technology for R&D and Cycle Transfer.** LyoPAT provides state-of-the-art control capabilities to control every aspect possible of the freezing and drying processes. It even offers an automated cycle that will execute the best freeze drying cycle possible without exceeding the product collapse temperature. LyoPAT is available on the MicroFD (included), Revo, Magnum and Epic.
- **AccuFlux®** provides a new dimension of measurement and control in freeze drying. This technology incorporates the use of heat flux sensors to measure heat flux directly versus calculating it. It also allows control of post nucleation ice crystal ripening, and subsequent crystal size, by regulating heat flow. AccuFlux is included in LyoPAT.
- **Auto-Dry™** totally automates primary drying by driving as much heat into the product as possible without exceeding the critical process temperature.
- **Millrock Reporter** provides batch reporting in the format that you design. You can rearrange the data being monitored for the view you find most important for your work.
- **Optional FreezeBooster®** controls nucleation of the free ice, creates a more homogenous ice matrix across the vials in a single batch, controls batch freezing uniformity, study freezing approaches and its effect on the product and product cycle.

# COMPARE OUR *FREEZER DRYERS*

## Processing Tray Freeze Dryer Comparison

Laboratory and commercial freeze dryers for pharmaceutical, biotechnology, diagnostics, tissue banks, and scientific labs.



	MicroFD	Stellar	Revo Revo Pro	Magnum Magnum Pro	Epic	Quanta
Application	Protocol Development	Lab	Lab Research & Development	Pilot Scale	Small Production	Production Freeze Dryers
Usable Shelf Area	19in2 48.26cm2	3.75 ft2 -6.25ft2 0.35m2-0.58m2	2ft2 -10ft2 0.18 m2 - 1m2	10ft2 - 20ft2 1m2 - 1.85m2	15ft2 - 30ft2 1.39m2 - 2.78 m2	8ft2 - 1000 ft2 0.75m2 - 93m2

## ENGINEERED FOR YOUR *NEEDS*

Millrock provides equipment for all phases of freeze drying, including protocol development, lab scale and production scale. Our team works in partnership with our customers, listening to your individual needs to innovate customized solutions for the best design and build possible.

## EXPERIENCE THE MILLROCK *DIFFERENCE*

When you purchase a Millrock product you get more than a freeze dryer. You get a long-term partner delivering industry-changing innovations, high-performing products, and on-call expert support.

Contact us to learn more about how Millrock Technology can partner with your business to provide the highest performance, advanced freeze drying services.

visit our website at [millrocktech.com](http://millrocktech.com)

