

Bench-top Freeze-Dryer

Benchtop Series

- Advanced Microprocessor Controls
- Manifold Dryer with 6 or 12 Ports
- 2 Liters in 24 hours
- Internal Condensing Coil—316L Stainless Steel
- -48C or -85C Condenser Temperature
- 316L Construction
- CFC-free Refrigeration
- Hot Gas Defrost

Millrock has responded to customer demand for a cost effective high performance bench-top manifold freeze dryer. The Benchtop Series takes a market proven design and has added the most advanced microprocessor control available on a bench-top unit.

The Benchtop Series boasts a 2L per 24 hour condensing rate. For water based samples, the -48C condenser is the perfect choice. For samples containing solvents or with low eutectic points, the -85 C condenser provides maximum performance.

For labs that need quick turn-around, hot gas defrost supplies fast/automatic defrosting.

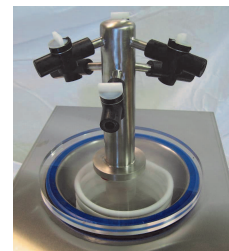
Pick from either a 6 or 12 port manifold. Both provide ample space for small and large samples to be dried simultaneously. Straight-thru vacuum valves offer a more direct vapor path.

Use Millrock's Stainless Freezedryware™ to dry bulk product or quantities of small vials.



Special points of interest:

- Large compressors offer fast condensing rates compared to similar systems
- Internal Condensing Coil, 316L
- Advanced Third Generation controls (3Gen) provides all the features required to protect the product and perform consistent freeze-drying runs



Opti-Dry Series	BT48	BT85
Temperature	-48 C	-85 C
Condenser Capacity	2L in 24 Hr	2L in 24 Hr
Compressor	1/3 HP	2 x 1/3 HP
Cabinet Dimensions	15.5"W x 25.0"D x 15.75"H	15.25"W x 25.0"D x 15.75"H
Voltage	120V, 60Hz, 1 Ph, 18A	120V, 60Hz, 1 Ph, 18A

3Gen Microprocessor Controls



Millrock has taken bench-top freeze-drying to a new level with the new 3Gen control system. Millrock's team first developed features like the 'ready' indicator and auto-power-outage recovery, and we now bring you '3rd Generation' controls with a display that is easy to read and intuitive.

With a back lit display and industrial tested microprocessor, freeze drying has never been easier. Display parameters include vacuum, condenser temperature, run time, ambient temperature, and even displays when to maintain your vacuum pump oil.

Inside the control is a new level of data acquisition that provides more accurate readings so that better control decisions can be made.

Microprocessor Instrumentation	
Display	Backlit Matrix LCD Temperature Vacuum Voltage Messaging
Vacuum Display	0 to 3000 mT
Control Features	Auto Start-up 'Ready' Indication Power Failure Recovery
Alarms and Reminders	Low Voltage High Ambient Power Outage Change Vacuum Pump Oil Clean Air Condenser



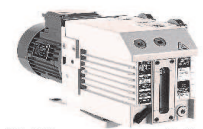
Manifold

A 6 or 12 port manifold is provided with the Benchtop series dryer and comes complete with vacuum valves. Each port is 1/2" external diameter. The ports are spaced to provide room for the largest flasks.



Vacuum Valves

The straight-thru design of Millrock valves provide less flow restriction and have greater internal diameter than other 3/4" diameter valves. The end result is faster, more consistent drying.



Vacuum Pump

A 60 lpm vacuum pump is recommended.

Accessories

Flaskware—A complete line of flaskware is offered by Millrock, including flasks from 75 ml to 1200 ml with snap-on silicone tops.



Stainlessware Freezedryware™ - Freezedryware provides the perfect solution to bulk drying and drying vials on a manifold freeze drying system.



Adapters— Glass adapters provide an easy connection from the vacuum valve to hoses and other accessories. 3/4" to 3/4" and 3/4" to 1/2" adapters are available in both straight and 45 degree.

Other products offered by Millrock Technology:

- Laboratory Series Tray Dryer, 3 Shelf, 8 Liter Capacity, -53C and -85C Internal Condenser
- Research Series Tray Dryer, 5 Shelf, 30 Liter Capacity, -53C and -85C External Condenser

Note: All specifications subject to change without notice. Specifications based on a 20C ambient on 60Hz.

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