PolarFit® Batch Freezer



Fast, economic, batch chilling or freezing of pharmaceutical and biotechnology materials

Features/benefits

High performance Versatile Easy to use Uses liquid nitrogen for rapid cooling

Performance advantages

The PolarFit Batch freezer enables you to:

- Permanently store eight freezing/ chilling product settings and recalls them at the touch of a button for ease of use
- Record the process temperature and steps
- Vary the freezer's temperature throughout the timed product settings
- View process time and batch temperature updates on the easy-to-read alpha-numerical display
- Use trolleys up to 3.3ft x 1.96ft x
 5.9ft (1m x 0.6m x 1.8m)



The Air Products PolarFit Batch Freezer uses the unique qualities of liquid nitrogen refrigeration for fast economic chilling or freezing of pharmaceutical and biotechnology materials. This unit can help reduce your cooling and freezing time, and can shorten the overall batch time of your cooling process—whether it is for freezing before lyophilization of inhalable drugs, therapeutic proteins, nutraceuticals or beyond.

How does it work?

The PolarFit Batch Freezer is a liquid nitrogen refrigeration system that consists of an insulated stainless steel cabinet with three custom designed fans and a liquid nitrogen injection system. Liquid nitrogen at $-320^{\circ}F$ ($-196^{\circ}C$) is sprayed onto the fan generating a cold nitrogen gas stream. The cold gas stream flows evenly over the tray or trolley mounted containers—quickly refrigerating the products. Typically, the freezer takes 20 minutes to refrigerate 220lb (100kg) of product. Both in-out and straight through versions are available. We offer three sizes: CB2400, CB1200 and CBMini to meet your different batch operational needs. The CB2400, CB1200 are sized to meet your full-scale production needs, whereas the CBMini is ideal for in-house product testing, product development, laboratories and small scale production. It can be supplied as a Table Top model or with its own moveable stainless steel base frame.

Table 1: General Specifications

Electrical Supply	3 Phase 460 V 60 Hz 12 Amp max
Liquid Nitrogen Supply	0.5 in. stainless steel or copper pipe
Exhaust Details	Stainless steel ductwork connected to
	the exterior of the building

Ask Air Products and expect more . . .

Air Products has decades of laboratory and plant experience in cryogenics. As a leader in cryogenic applications, we offer solutions beyond just gases and equipment. We can provide the training and safety systems necessary for a quality installation, as well as technical support before, during and after installation.

Our cryogenic specialists can help you improve your productivity, lower your costs, maximize your returns, and, as a result, help make you more competitive in a very competitive market.



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For more information, please contact us at:

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