



Medium Food Freeze Dryer



STANDARDS

ASTM E3250

IEC 61010-1

ISO 14159

ISO 22000

Medium Food Freeze Dryer - QualiFFD™ 6

A medium-format Freeze Dryer for pilot batches and medium production runs, the QualiFFD™ 6 is a Food Freeze Dryer built to support repeatable freeze-drying with simple operation. It's designed for medium food brands, test kitchens, and R&D teams that need stable drying performance without moving to large floor-standing systems. The platform is positioned to help preserve taste and structure while lowering storage and shipping weight.

QualiFFD™ 6 uses freezing and vacuum sublimation to remove moisture at low temperatures, which supports food products that degrade under heat drying. The chamber and cold trap are integrated to shorten the vapor pathway and improve water-vapor capture efficiency. A safety lock is included to reduce accidental modification of process status and parameters during operation. Operation is presented as straightforward, making it suitable for routine food freeze-drying cycles in medium facilities.

APPLICATIONS

Medium Food Freeze Dryer - QualiFFD™ 6 Applications

- Emergency and long-storage foods: Freeze-dried foods are often produced for long storage because moisture removal helps slow spoilage drivers. This supports preparedness products and shelf-stable reserve foods for medium organizations. The dried format also improves packability for storage programs.
- Outdoor meals and lightweight rations: Freeze drying reduces weight while supporting fast rehydration, which fits outdoor and travel meal formats. This series supports medium-batch production for new SKUs and flavor trials. It also fits pilot production for brands preparing to scale up.
- Fruits, vegetables, and premium snacks: Many snack formats depend on structure retention and consistent crunch after drying. Low-temperature drying supports color and aroma retention better than many hot-air processes. medium-batch capability supports product testing, packaging trials, and shelf-life evaluation.
- Pet food and treats: Freeze-dried pet treats are widely used for high-protein products that remain shelf-stable. medium producers can run repeatable batches while testing different proteins and portion sizes. This series also supports R&D sampling before moving to higher capacity equipment.



Standards

- ISO 22000: Food safety management systems for hazard control and documented process management.
- ISO 14159: Hygiene requirements for machinery design where sanitary practices matter.
- IEC 61010-1: General safety requirements for electrical equipment used in laboratory and control environments.
- ASTM E3250: Best practices for freeze dryer instrumentation, focused on temperature and pressure measurement.

FEATURES

Medium Food Freeze Dryer - QualiFFD™ 6 Key Features

- Simple operation workflow intended for routine food freeze-drying cycles in medium facilities.
- Integrated chamber and cold trap design to shorten the sublimation path and improve vapor capture.
- Design approach intended to speed vapor removal, supporting shorter drying cycles.
- System safety lock to reduce accidental edits to system status and process parameters.
- After-sales technical support described with phone and remote assistance, plus on-site service when needed.
- Series scalability with multiple capacity and drying-area options shown on the platform.

THEORY & METHOD

Theory and Method

Freeze drying begins by freezing the product so water becomes ice. Vacuum is then applied so ice sublimates directly into vapor rather than melting. Vapor is captured by the cold trap, supporting stable chamber pressure during drying. Cycle control aims to balance temperature and vacuum so the product dries evenly without collapse. This method is often selected

when rehydration performance and structure retention matter.

TECHNICAL SPECIFICATIONS

Medium Food Freeze Dryer - QualiFFD™ 6 Technical Specification

| Specification | QualiFFD™ 6 |
|--------------------------|--|
| Freeze-drying area | 0.6 |
| Cold trap temperature | ≤ -60 °C (no-load) |
| Ultimate vacuum | ≤ 5 Pa (no-load) |
| Chamber capacity (Liter) | 6 |
| Feed capacity | 6 kg |
| Voltage | AC 220 V, 50 Hz (110V is also available) |
| Overall power options | 2500 W |



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