



# armfield

## VACUUM FREEZE DRIER

**FT33**  
issue 3

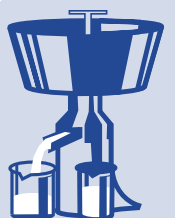


*The Armfield Freeze Drier is a compactly designed unit with an insulated working chamber 300mm diameter x 385mm deep. It incorporates a built in refrigeration system and temperature controlled heating system. With the working chamber and condenser chamber constructed from stainless steel, it offers excellent corrosion resistance and can be easily sterilised.*

*The products can be frozen in the chamber before drying.*

*The unit is designed for freeze drying biologically heat sensitive materials contained in beakers or other vessels.*

*It can be considered to be a small scale replica of commercial scale pharmaceutical and food production machines.*



## DESCRIPTION

*The FT33 Freeze Drier comprises a cylindrical working chamber 300mm diameter by 385mm depth mounted adjacent to a 210mm diameter condenser chamber in a painted stainless steel cabinet. Both chambers incorporate a clear acrylic lid on an 'O' ring seal. Products to be freeze dried may be frozen in the working chamber prior to drying. Drying rate may be controlled by the application of heat to the working chamber via a heating element with temperature controller.*

*Ice build up in the condenser chamber can be observed through the acrylic lid. The chamber is defrosted by an electrical heater and the ice plug may be removed whole via the lid or allowed to melt totally and drained through the drain plug. A vacuum pump of 150 l/min capacity is supplied and stands beside the freeze drier. An oil mist filter is fitted as standard. The refrigeration system will give a no load condenser chamber temperature of -55°C. A thermostatic expansion valve automatically adjusts the extraction rate to handle large quantities of vapour. The unit is provided with magnetic shut off valves, electrical overload and overheat protection devices. A membrane panel with touch sensitive switching and LCD controls refrigeration, vacuum pump, heating and defrost.*

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## TECHNICAL SPECIFICATION

### Condenser chamber:

Ice capacity: 4kg  
No load temp: -55°C

### Working chamber:

Heater rating: 300W  
Refrigerant: R507 (non CFC)

## ORDERING SPECIFICATION

- **A vacuum freeze drier with a top loading working chamber 300mm in diameter and 385mm deep with refrigeration and heating, 210mm diameter refrigerated condenser chamber.**
- **The chambers have clear acrylic lids for process observation.**
- **The refrigerant is R507 (non CFC) and the condenser chamber no load temperature is -55°C.**
- **The working chamber has four mobile temperature probes.**
- **A membrane panel with touch sensitive switching and liquid crystal display controls refrigeration, vacuum pump, heating and defrost. A vacuum pump with a capacity of 150 litres/minute is provided**

## SERVICES REQUIRED

### Electrical supply:

FT33-A: 220-240V/1ph/50Hz  
FT33-B: 120V/1ph/60Hz

## OVERALL DIMENSIONS

Height: 570mm  
Width: 915mm  
Depth: 512mm  
(excluding vacuum pump)

## SHIPPING SPECIFICATION

Volume: 0.8m<sup>3</sup>  
Gross weight: 170kg