

FREEZE DRYER



Descriptions

Freeze drying is a process whereby a product is dried by removing the water under low temperature and pressure. It is involving the removal of water or other solvents from a given product by a process called sublimation. This occurs when the ice of a frozen product converts directly to the gaseous state without passing through the liquid phase. This enables the preparation of a stable product that is easy to use and store at ambient temperatures.

A low pressure environment is a pre-requisite to allow this process to take place. In order to start the removal of the water, the pressure inside the freeze dryer must be below the "triple point value" for the product, whilst also maintaining the temperature of the sample below its freezing point.

Further Information

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Brand-Model

Labogene Scanvac Coolsafe

Basic Specifications

- Lowest condenser temperatures of -55°C, -95°C, -100°C or -110°C
- Seamless stainless steel condenser with external cooling coils, heavily insulated to conserve energy and increase performance
- Easy draining with built-in valve, allowing removal of water after a completed freeze-drying session
- Easy operation with a built-in vacuum valve connecting the condenser and vacuum pump and allowing the condenser to cool down and the vacuum pump to warm up separately, ensuring an efficient start-up sequence

Equipment Website (Manufacturer)

<https://www.labogene.com>

Types of samples

Bulk /solid/ powder / liquid/extract

Location

Analytical Service Laboratory
(03-102-01)

Operator

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