

Modified Atmosphere Dryer

High quality drying of food and biological material assisted by microwave in an inert atmosphere

Vacuum Freeze Drying is a thermal preservation process which results in high product quality since the product is kept frozen while dried. The system is a microwave assisted vacuum freeze drier with the following features:

- Freeze Drying
- Vacuum Drying
- Microwave assisted
- Inert Drying (e.g. Nitrogen)
- Industry Scale
- Smart control



Advanced Microwave Vacuum and Freeze Drying

The limiting factor in drying is commonly the heat transfer from the drying agent to the product. In microwave assisted drying the required heat is directly supplied to the product which allows an instantaneous and loss-free heat supply. Combined with vacuum the evaporated moisture is removed quickly from the system.

The drying system results in very high product quality due to the freeze drying while the drying process is energy efficient and fast.

Application Fields:

- ◇ Food Industry
- ◇ Pharmaceutical Industry
- ◇ Chemical Industry

Applications:

- ⇒ Drying of thermosensitive products
- ⇒ Removal of Residual Moisture
- ⇒ Evaporation of solvents



1 kW of microwave energy sublimate more than 1 kg of ice per hour: similar to specific energy consumption than in conventional dryers.

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