

Freeze-Drying Plant 1.2 kW, 2400..2500 MHz & 1 kW 900..915 MHz

Based on Solid State Microwave Technology



Application

Laboratory device for microwave freeze-drying of foods for shorter drying times of thermally sensitive products under vacuum atmosphere.

Technical Data

| | |
|------------------------------|---|
| Type of Microwave Generators | Solid State |
| Power | 4 x 300 W = 1.2 kW 2400..2500 MHz 1 x 1000 W = 1.0 kW 900..930 MHz continuously and steplessly adjustable |
| Main Supply | 3x 400 VAC, 50 Hz/ N/ PE |
| Throughput | 6 kg/h |



Cooling

Water cooling

| | |
|-------------------------------|------------------------|
| Total cooling water flow rate | Minimal 30 l/min. |
| Water temperature | 13.5° - 25° C |
| Inlet pressure | min. 3 bar, max. 4 bar |

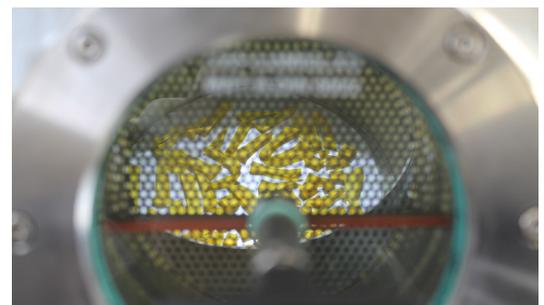


Dimensions

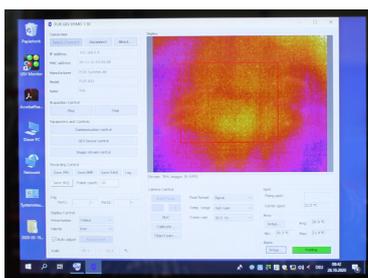
| | |
|-----------------------|---------------------------|
| Inner dimension | Ø 804 x 1120 mm |
| Outer dimension WxHxD | ca. 2950 x 2400 x 3390 mm |
| Weight | ca. 3000 kg |

Features

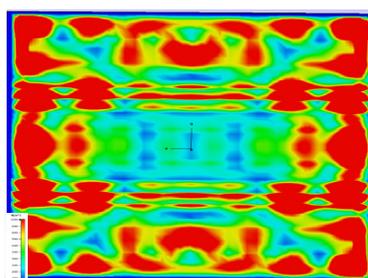
- Actively heated and insulated chamber wall
- Automatic pressure and temperature measurement
- Weiging for rotating product support in vacuum, accuracy ± 0.1 g
- Vacuum unit with silencer for operation pressure of 0.05mbar
- Chamber with condenser to remove moisture
- Service door for easy cleaning of the condenser
- Stainless steel version including control cabinet
- PLC Control with touch panel



Product test with mango



IR check of temperature



Power loss density distribution



Isolators for prevention of reflecting radiation

Examples of freeze-dried food tests

Process temperature ~40° C



Mango



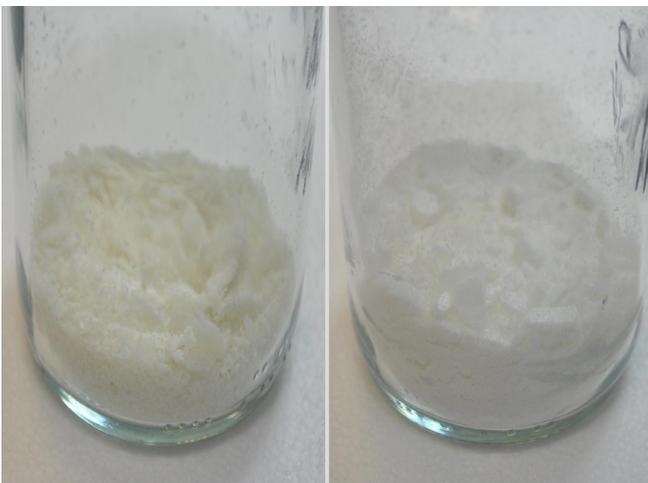
Raspberry



Wild garlic



Cheese balls



Camel milk