

# MICROWAVE CHAMBER OVEN 24 kW

2440 - 2470 MHz

:fm



## GENERAL INFORMATION

Research microwave oven based on magnetron technology for homogeneous drying of various products with minimal pressure losses across the microwave chamber. The device is suitable for all drying and heating processes (up to 1500° C using insulating box) under different atmospheres like bricks & ceramics, refractory products and food (in a hygienic design).

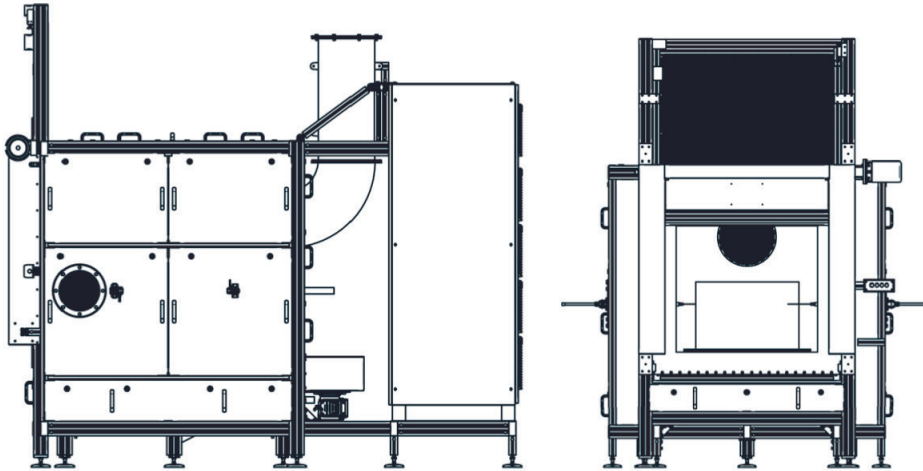
## KEY FEATURES I TECHNICAL DETAILS

- Measurement of the microwave power injected into the chamber and reflected from the chamber
- Electromagnetic simulation of the microwave coupling systems (antennas) and the microwave chamber to generate very homogeneous microwave fields
- Sophisticated control or regulation via Siemens PLC
- Hot air system adjustable in volume flow, humidity and temperature up to 250 °C
- Drying according to defined progressions in the h-x diagram
- IR camera with high resolution, fiber optics and jacketed high temperature sensors
- Moisture measurement up to 250 °C
- Electric lift door, illumination of the microwave chamber & viewing window or camera to allow visual inspection during drying or heat treatment
- Microwave chamber largely sealed to allow drying or heat treatment under controlled atmosphere

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## OPTIONAL FEATURES

- Combination with a second frequency of 915 MHz with 2 microwave generators each 5 kW 915 MHz
- Optional microwave generators based on Solid State microwave technology
- Oscillating work table. This allows processes to be simulated in continuous operation
- Installation of high temperature insulation for sintering processes is possible
- Microwave chamber made microwave permeable material like vacuum desiccator
- Humidification system
- Convection, circulation and mixed operation of hot air
- IR heating min. 10 kW
- Pressure measurement in microwave chamber
- Weighing system
- Turntable with integrated weighing system
- Manual door instead of the electric lift door

## SPECIFICATION

### Dimensions

|               |         |
|---------------|---------|
| Usable length | 1000 mm |
| Usable width  | 800 mm  |
| Usable height | 800 mm  |
| Total length  | 3180 mm |
| Total width   | 2020 mm |
| Total height  | 2885 mm |

### Technical data

|                      |                    |
|----------------------|--------------------|
| Microwave power      | 24 kW (4 x 6 kW)   |
| Frequency            | 2440 to 2470 MHz   |
| Supply voltage       | 3x 400 V AC, 50 Hz |
| Total connected load | max. 100 A         |
| Power Input          | 125 A              |

### Water cooling

|                  |                     |
|------------------|---------------------|
| Flow temperature | 20° - 25° C         |
| Water flow rate  | 40 l/min            |
| Water pressure   | 3.5 bar, max. 5 bar |