

MICROWAVE SINTERING FURNACE

Microwave sintering furnace

For sintering of ceramic materials different kinds of ovens and furnaces can be used. Microwave sintering furnace is one of the most advanced methods for sintering of ceramic materials. In this method emitted microwaves from microwave lamps absorb by absorbing materials and produce required heat for sintering of ceramic components. Using this technique may result in saving of time by 85% and energy up to 95%. Microwave sintering furnace can be applied for sintering of alumina in 1500 °C. Frequency of microwave is 2.45 GHz.

Advantages:

- Uniform heating of ceramics with high melting temperature
- Uniform interface of sintered ceramics
- High precision curing process
- High heating rate
- Adjustable power
- Safe and secure system
- Simple control system

Application:

This method can be used for sintering of various products such as metallic powders, magnets, structural ceramics, piezo resistance, thermistor, piezoelectric ceramics, microwave dielectric ceramics, ceramic honeycomb, electrical porcelains, carbon materials, catalysts, high pure alumina, magnesium oxide, zinc oxide, zirconium oxide, aluminum hydroxide, zirconium nitrate, etc.

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Technical characteristics:

Parameter	Value / Description
Max temp	1500 °C
Frequency of lamp	2.45 GHz
Input electricity	10 A, 50 Hz, 1 Φ, 220 V
Power control accuracy	< 5%
Temp. control	Pyrometer
Temp. control accuracy	3 °C
Control system	PLC/HMI
Hot zone volume	10 cm ³

Picture:

