





Microwave drying of chemicals

Advantages and characteristics of microwave drying equipment for chemical materials:

1. Microwave heating is an integral heating method, does not need the heat conduction process. The integral heating method can achieve uniform heating in a short time, materials with poor heat conduction can be heated and dried in a short time. Energy consumption is typically reduced by more than 50%. It can also reduce the area of drying equipment, reduce the investment of site cost.
2. The safe and reliable microwave shielding design of the microwave drying equipment for chemical materials ensures that the microwave leakage per square centimeter is less than 2mw, far lower than the national standard.
3. Microwave drying equipment for chemical materials can achieve non-pollution and uniform drying of materials, and can greatly reduce the drying temperature;
4. Microwave drying equipment for chemical materials has no high temperature, no waste water and no waste gas emissions, truly achieving safe and clean production.

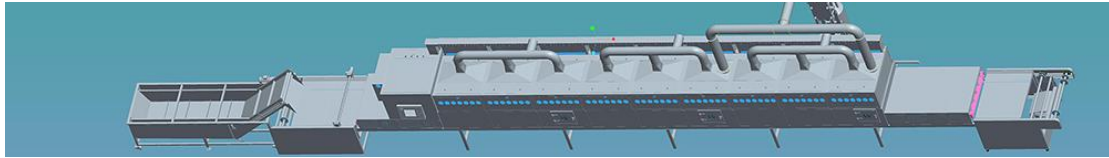
The device is highly automated, which avoids many errors, we can also according to customer requirements, to make the best design and configuration.

			
12kw Microwave drying equipment for chemical materials	30kw Microwave drying equipment for chemical materials	50kw Microwave drying equipment for chemical materials	Can be customized higher power chemical material microwave drying equipment

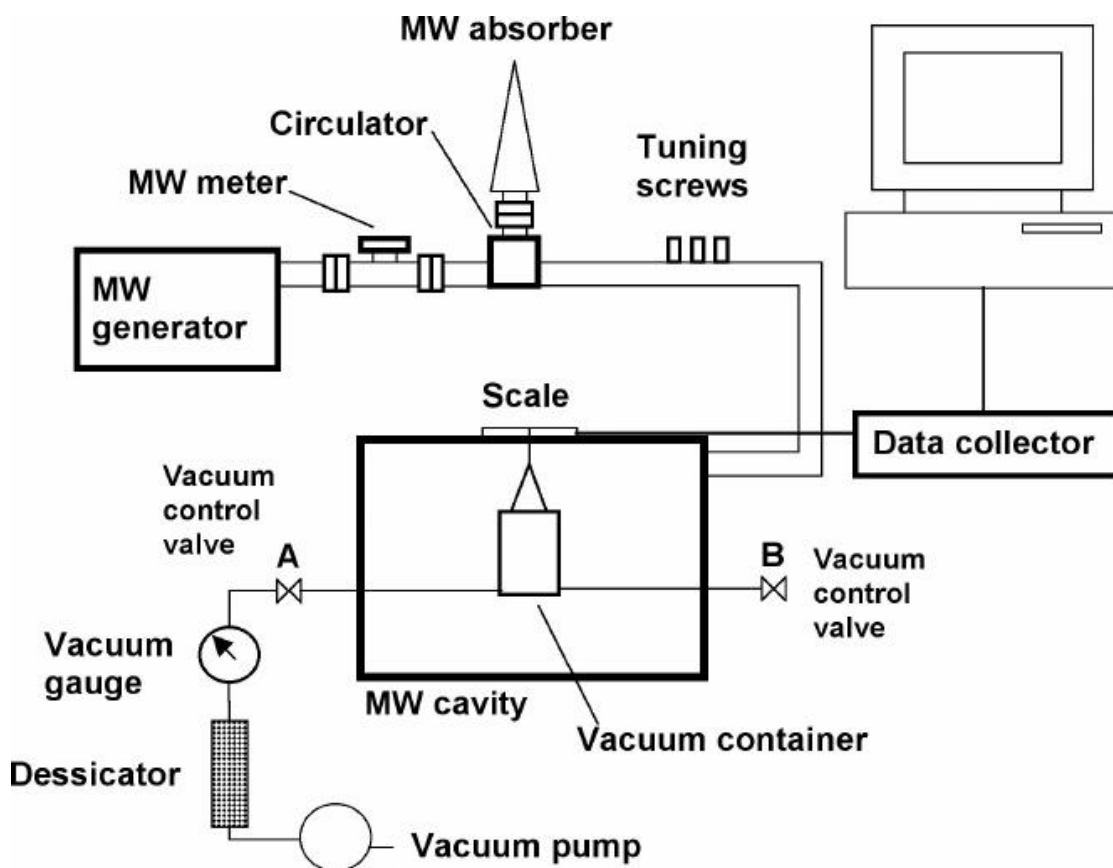
Product specifications:

model	DL-12 KW	DL-30KW	DL-50KW	DL-80KW
microwave frequency	2450/915MHz	2450/915MHz	2450/915MHz 的	2450/915MHz 的
output power	12KW	30KW	50KW	80KW

transmission speed	0-5m /minute (adjustable)	0-5m //minute (adjustable)	0-5m //minute (adjustable)	0-5m //minute (adjustable)
leakage value	≤3mw/m3	≤3mw/m3	≤3mw/m3	≤3mw/m3
size	7000x840x1800mm	10500x840x1800mm	12500x1200x1800mm	15000x1400x1800mm
drying capacity	120-150kg /hr	300-400kg /hr	500-600kg /hr	800-1000kg /hr



Schematic of the microwave vacuum dryer.:



Microwave processing applications chemical engineering industry is one possible substitute. The advantages of using microwave processing applications in chemical engineering can range from improved quality, reduced wastage; unique characteristics induced by "volumetric" heating and increased production. Furthermore in the age of green awakening microwave processing is argued to help improve process efficiency by using green electric supply hence reducing CO2 emissions.

Comparison of Yield under Microwave and Conventional Heating Methods:

CHEMICAL REACTION	TEMPERATURE (°C)	TIME (MINUTES)	MW YIELD (%)	CONVENTIONAL YIELD (%)
Hydrolysis of hexanenitrile	100	60	40	26
Oxidation of cyclohexene	80	60	26	12
Esterification of stearic acid	140	120	97	83

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