

# Microwave Spices Sterilizer Machine

## Specifications :

Price	USD 90,000-8,800
Brand Name	LOYAL
Model Number	LY
Place of Origin	CHINA
Min.Order Quantity	1
Payment Terms	T/T, L/C
Supply Ability	30SETS/MONTH
Delivery Detail	30DAYS
Packaging Details	Wooden packages

## Detail Introduction :

### Microwave Spices Sterilizer Machine

In the realm of spice processing, the Microwave Spices Sterilizer Machine from Shandong Loyal Industrial Co., Ltd. emerges as a game-changer, offering advanced solutions for drying and sterilizing a variety of spices. This innovative technology caters to a range of materials, including curry powder, paprika, onions, horseradish, bay, cinnamon, cloves, vanilla beans, nutmeg, fennel, licorice, thyme, turmeric, and cumin. Let's delve into the intricacies of its working principles, advantages, and common FAQs surrounding this cutting-edge equipment.



Shandong Loyal Industrial Co., Ltd. specializes in manufacturing cutting-edge food processing equipment, including the revolutionary Microwave Spices Sterilizer Machine. This innovative machine offers a comprehensive solution for the drying and sterilization of food seasonings, ensuring both quality and safety.

The Microwave Spices Sterilizer Machine from Shandong Loyal Industrial Co., Ltd. is designed to meet the high standards of the food industry. With its advanced microwave technology, this machine can effectively sterilize a wide range of spices, including pepper powder, ensuring that they are free from harmful bacteria and contaminants.

## DETAIL CHARACTERISTICS



### 01 ENVIRONMENTAL POLLUTION-FREE

Microwave drying equipment does not produce environment of high temperature, dust and noise, without waste water and exhaust gas in the process of operation, no waste is generated.



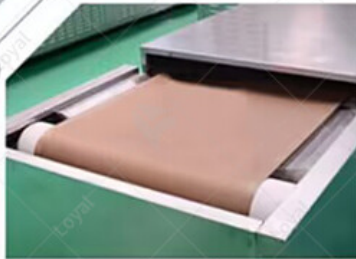
### 03 ADVANCED TECHNOLOGY EASY TO CONTROL

Microwave heating just have the basic conditions of water, electricity, as long as control power of microwave which can realize the automatic control of heating process immediately.

### HEATING UNIFORMITY

### 02

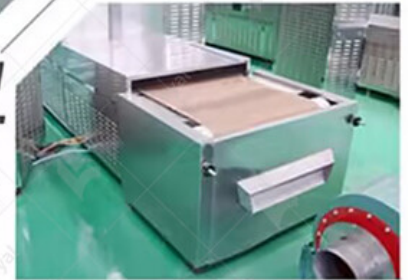
Material can generate heat at the same time under the action of electromagnetic waves from microwave, there will be no coke endogenous phenomenon.



### SMALL FOOTPRINT SAFE AND HARMLESS

### 04

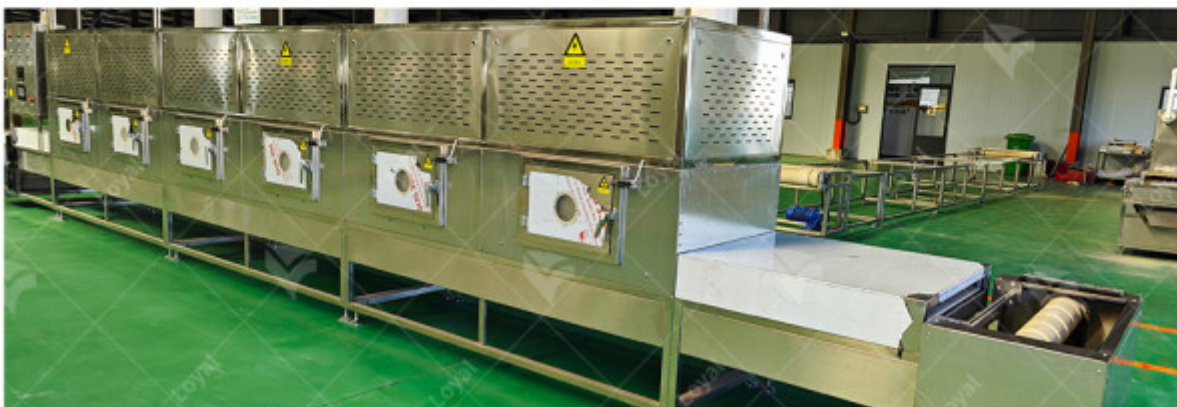
Because the microwave energy is control in metal heating indoor and work in the waveguide tube, so rarely microwave leak, no radiation damage and harmful gas emissions, and does not produce waste heat and dust pollution.



## Working Principles of Microwave Spices Sterilizer Machine:

The Microwave Spices Sterilizer Machine harnesses the power of microwave technology to efficiently dry and sterilize spices. The process begins by placing the spices inside the machine, where microwave energy is emitted. The microwave energy penetrates the spices, causing the water molecules within to vibrate rapidly. This rapid vibration generates heat, leading to the quick evaporation of moisture from the spices.

The unique aspect of this equipment lies in its ability to selectively heat the moisture within the spices without significantly affecting the temperature of the spices themselves. The controlled and precise nature of microwave drying ensures that the spices are sterilized thoroughly, maintaining their natural flavor, color, and aroma.



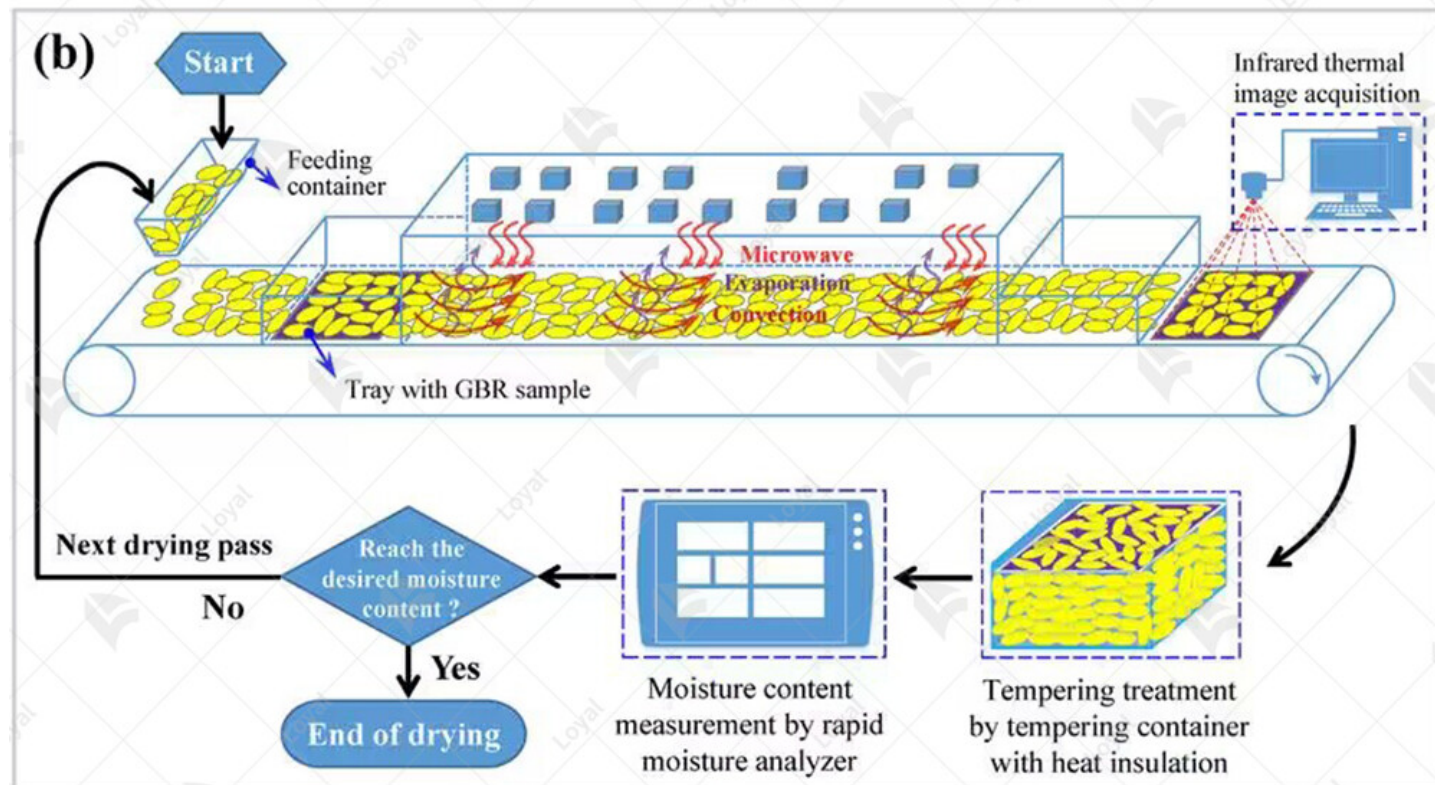
Our Food Seasoning Drying and Sterilization Machine is equipped with tunnel microwave technology, allowing for rapid and uniform drying and sterilization of food seasonings. This ensures that the spices retain their flavor, color, and nutritional value while meeting strict safety standards.

The Tunnel Microwave Spices Dryer Sterilizer offered by Shandong Loyal Industrial Co., Ltd. is renowned for its efficiency and reliability. By harnessing the power of microwave technology, this machine can quickly and effectively sterilize large quantities of spices, making it ideal for industrial-scale production.

Industrial Microwave Sterilize Spices is a key feature of our spice processing equipment. With precise control over the sterilization process, our machines ensure that spices are thoroughly sterilized without compromising their quality or



flavor. This gives our customers peace of mind knowing that their products are safe for consumption.



Microwave sterilizing is a highly effective method for eliminating bacteria, mold, and other pathogens from spices. Our machines use microwave energy to penetrate deep into the spices, effectively killing harmful microorganisms while preserving the integrity of the product.

### Technical Parameters Of Continuous Microwave Dryer Industrial Microwave Drying Machine

Model	Size L*W*H(Can be customized according to the customer's requirements)	Output power	Dewaterability	Sterilization capacity	Baking and Roasting capacity (Depends on different raw material)
LY-10KW	5000mm*825mm*1750mm	10KW	10KG/Hour	100KG/Hour	30-50KG/Hour
LY-20KW	8000mm*825mm*1750mm	20KW	20KG/Hour	200KG/Hour	60-100KG/Hour
LY-30KW	8500mm*1160mm*1750mm	30KW	30KG/Hour	300KG/Hour	90-150 KG/Hour
LY-40KW	10000mm*1160mm*1750mm	40KW	40KG/Hour	400KG/Hour	120-200KG/Hour
LY-50KW	12500mm*1160mm*1750mm	50KW	50KG/Hour	500KG/Hour	150-250KG/Hour
LY-60KW	13500mm*1450mm*1750mm	60KW	60KG/Hour	600KG/Hour	180-300KG/Hour
LY-70KW	13500mm*1500mm*1750mm	70KW	70KG/Hour	700KG/Hour	210-350KG/Hour
LY-80KW	13500mm*1650mm*1750mm	80KW	80KG/Hour	800KG/Hour	240-400KG/Hour
LY-100KW	16800mm*1650mm*1750mm	100KW	100KG/Hour	1000KG/Hour	300-500KG/Hour
LY-150KW	22400mm*1850mm*1750mm	150KW	150KG/Hour	1500KG/Hour	450-750KG/Hour
LY-200KW	27000mm*1850mm*1750mm	250KW	250KG/Hour	2500KG/Hour	750-1250/Hour
LY-300KW	32000mm*1850mm*1750mm	300KW	300KG/Hour	3000KG/Hour	900-1500KG/Hour
Power Supply		380V±10% 50Hz±1% Three-Phase Five-Wire			
Microwave Output Frequency		2450±50Mhz			
Microwave Input Apparent Power		168Kva			
Microwave Output Power		120Kw			
Microwave Power Adjustment Range		0-30Kw(Adjustable)			

Ambient Temperature	-5-40°C
Relative Humidity	≤80%, Surrounding Environment: No Corrosive Gas, Conductive Dust And Explosive Gas
Transmission Speed	0-10m/Min(Adjustable)

**1. PLC control system**



**6. Machine Material : 304 stainless steel**



**5. The observation window is equipped with a travel switch to prevent microwave leakage and improve safety.**



**2. Material Feeder : Customizable according to your materials, both Liquid & Powder & Pellet available**



**3. Belt: Customizable mesh belts of various materials**



**4. Control cabinet: Add a control box, neat and easy to clean.**



## Advantages of Microwave Spices Sterilizer Machine:

### 1. Rapid Sterilization and Drying:

The use of microwave technology significantly accelerates the sterilization and drying process, ensuring a quick turnaround in production. This speed not only enhances efficiency but also allows manufacturers to meet the demands of a dynamic market.

### 2. Uniform Sterilization:

Industrial microwave systems offer unparalleled uniformity in sterilization. The microwave energy is precisely controlled, ensuring each spice undergoes consistent and thorough sterilization, preventing issues such as uneven treatment.





### 3. Preservation of Spice Quality:

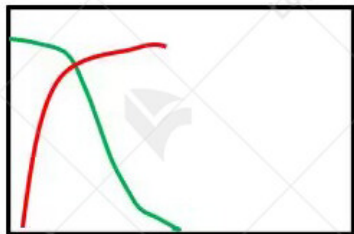
The controlled and rapid nature of microwave sterilization helps preserve the quality of spices. It ensures that the final product maintains its natural characteristics, meeting high standards for flavor and aroma.

### 4. Energy Efficiency:

Shandong Loyal Industrial Co., Ltd. prioritizes energy efficiency in their designs. The Microwave Spices Sterilizer Machine minimizes energy consumption by precisely targeting the moisture within the spices, reducing overall production costs and environmental impact.

# LOYAL'S MICROWAVE ADVANTAGES

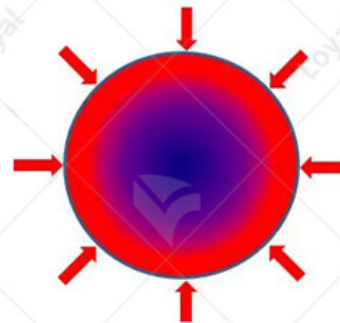
**Microwave Heating**



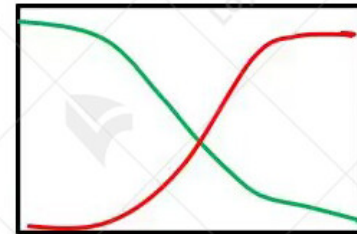
Time

**FASTER, MORE EVEN**

**Conductive Heating**



Temperature



Time

**SLOWLY...**

## 5. Versatility in Spice Handling:

This equipment is designed to handle a variety of spices, ensuring versatility in spice processing applications. From delicate herbs to robust spices, the microwave sterilizer accommodates diverse product lines.





### Industrial Microwave Dryer VS Gas Dryer Comparison

Operating Conditions	Industrial Microwave Dryer	Direct Fired Gas Dryer(Rotary Drum, Ring, Convection, FlashTypes)
Energy Source	Electricity	Gas
Heat Penetration	Volumetric(Uniform Throughout	Surface To Interior Conduction
Heating Rate	Nearly Instantaneous	Typically Slow
Chemical Changes To Product	None	Carbonization, Maillard Reaction, Other
Dryness Control/Consistency	Precision ,<1% Possible	Non-Precision,3-5% Typical
Color Change To Product	None	May Darken*
Nutrient loss in product	None	Possible
Reliability	Very High	Poor To Moderate
Labor Requirements	Minimal, Fully Automatic	Usually Requires Dedicated Operator
Fire/Explosion Hazard*	None	Possible
Energy Efficiency		
Overall Energy Efficiency	75%+	<50% **
Heat Energy Delivered To Load	95%+	<50%
Water Removal Energy	1000 - 1200 Btu/ Lb	1800-2400 Btu/b**
		4200-5600
	2300-2800 Kj/Kg	Kj/Kg**
Emissions		
Control Equipment Required?	No	Yes
Generates Vocs ?	No	Yes
Generates Cox And Nox ?	No	Yes
Generates Particulates ?	No	Yes

### FAQs: Common Questions About Microwave Spices Sterilizer Machine:

Q1: Can the Microwave Spices Sterilizer Machine handle different spice varieties in a single batch?

A1: Yes, the equipment is designed to handle various spice varieties simultaneously. The controlled microwave energy distribution ensures uniform treatment across different spices in a batch.

Q2: Does microwave sterilization impact the natural color and aroma of spices?

A2: No, the precise and controlled nature of microwave sterilization minimizes the impact on the natural color and aroma of spices. The final product retains its authentic qualities.

Q3: How does the Microwave Spices Sterilizer Machine contribute to energy efficiency?

A3: The industrial microwave system is equipped with advanced technology to target moisture selectively, minimizing overall energy consumption and contributing to a more energy-efficient spice processing operation.



In conclusion, the Microwave Spices Sterilizer Machine by Shandong Loyal Industrial Co., Ltd. represents a significant advancement in spice processing technology. Its innovative use of industrial microwaves not only ensures efficiency and uniformity but also addresses key concerns related to spice quality and energy consumption. As manufacturers embrace this cutting-edge technology, the spice processing industry is poised for enhanced quality and productivity, marking a new era in spice sterilization and drying.