



Closed-Loop Heat Pump Food Dehydrator

Since 1994

Energy-saving · Safe

Environmentally-friendly · Clean

Intelligent Control · Remote Management





















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www.ike.cn

IKE Group

Guangdong IKE Industrial Co. Ltd

COMPANY PROFILE



Thanks to a large number of outstanding and dedicated professionals in technology, management and marketing, and over 20 year experience in the industry from IKE Group, the company has developed a series of air-sourced products that are uniquely different from and superior to the traditional ones. Our products can only be imitated but can never be surpassed!

ACCUMULATION, ADVANCED DESIGN

With a 60 million USD sole investment from IKE Group, Guangdong IKE Industrial Co. Ltd (IKE Industrial) is founded and located in the New and High Technology Industrial Park of the City of Meizhou, Guangdong Province.

IKE Industrial is a modern enterprise dedicated for the design and manufacture of commercial and residential heat pump water heaters, heat pump dryers, and floor heaters, as well as air conditioners. With 110,000 m² planning and 63,000 m² completed factory area, IKE Industrial has become the biggest heat pump manufacturer with the highest production capacity in China.







AWARD AND HONOR









One of the company who make the draft for National Standard of Heat Pump drying Collaborative Project with Chinese Academy of Agricultural Engineering Drying Equipment Recommended by the Agricultural Department of Hainan Province Joint Learning/Research Center with South China Agricultural University Joint Learning/Research Center with Foshan University

Technology Innovation Award by Environmental Protection Department of Shanxi Province Luohanguo Industry Contribution Award by Guilin City, Guangxi Province Awarded Honorary Title "Care-Giving Company" Multiple Times



Social Responsibility



















IKE and its products were given numerous honors by consumer organizations.







eadership Support





Mr. Liu Wei, formal vice head of the Department of Science and Technology of Guandong Province,



IKE takes active part in many government-sponsored projects, in order to help people in economically





IKE founded research centers with South China Agricultural University & Foshan University to conduct research on drying technology for agricultural products.

>> Production Scenario





Laser Cutting Workshop CNC Punching Workshop







Automatic Welding Machine Foam Production Works Mainboard Production Workshop





Host Assembly Line

Host Assembly Line









Loading

≫Technical Strength





























- **≫IKE Industrial owns several advanced assembling lines for** sheet metal beating, injection molding, painting, evaporators & condensers, cardboard boxes and foam boards, water
- > It is equipped with imported advanced manufacturing facilities for laser cutting, digitally controlled punching &
- The company also owns several laboratories of national

























CURRENT STATUS OF CONVENTIONAL DRYING

Currently, the traditional drying method basically means exposing the material to be dried to the sun and using the solar energy to directly dry the material. Even with some mechanical assistance, the material still has to be dried to a certain extent by the sun before it can be placed into a drying house. Therefore, the conventional drying method is very weather dependent.

As the traditional drying , human labor is needed to constantly distribute, collect and re-distribute the material. Similarly, drying using a traditional baking house requires positional adjustment for the material many times because of uneven temperature inside the house.



Since the traditional drying method simply exposes the material directly to the sun, the material will unavoidably be contaminated by the surrounding pollutants such as dust and bugs, a serious problem especially for food products. Because of this, it is very difficult for food products dried by the traditional method to meet today's high standard of hygiene and quality, restricting many companies to expand and enter into the high-end food market.

Many people have recognized the above three major problems and adaptied some drying equipment to assist drying. However, this often leads to high energy consumption and uneven drying result. Furthermore, many items such as fruits have to be initially dried by the sun before they can be placed into the traditional drying equipment for the final stage drying.

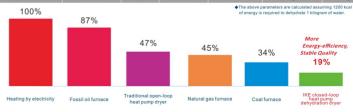


Many traditional drying methods usually use coal, fossil oil, natural gas or electricity as the power source for drying. A more advanced one uses air-sourced energy for drying. We made a comprehensive comparison among several drying systems, using 1 kilogram of water dehydrated from the material to be dried as the comparison standard.



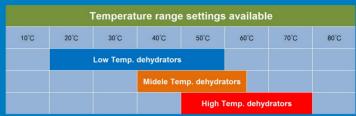
COMPARISON OF DIFFERENT DRYING METHODS

Heating method	Heating by electricity	Coal furnace	Fossil oil furnace	Natural gas furnace	Traditional open-loop heat pump dryer	IKE closed-loop heat pump dehydration dryer
Fuel type	Electricity	Coal	Diesel	Natural gas	Electricity	Electricity
Heating power	860kcal/kwh	5500kcal/kg	10200kcal/kg	8600kcål/m	860kcal/kwh	Dehydration
Heat efficiency	95%	30%	70%	80%	200%	>3kg/kwh
Effective heating power	817kcal	1650kcal	7140kcal	6880kcal	1720kcal	4300kcal
Unit price of the fuel	\$1/kwh	\$1/kg	\$7.5/kg	\$3%/m	\$1/kwh	\$1/kwh
Consumed fuel	1.47	0.72kg	0.17	0317m	0.69kwh	0.28kwh
Operation cost	1.47	0.72	1.28	0.66	0.69	0.28
Human administration cost	Higher	High	High	High	Average	Low
Maintenance cost	Lower	Higher	Higher	Higher	Lower	Very Low
Safety feature	Unsafe	Unsafe	Unsafe	Unsafe	safe	safe
Pollution extent	No	Very Heavy	Heavier	Less	No	No
Equipment lifetime	5-7years	8-10years	8-10years	8-10years	10-15years	10-15years



www.ike.cn | Heat Pump Dryer Energy-saving · Safe · Clean

IKE Closed-Loop Dehydration Heat Pump Dryer



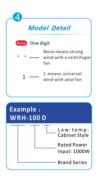
With unique creativity, IKE engineers have so far invented and manufactured six IC cards for data communication, data collection, system monitoring and reliable power supply.

IKE Model Naming Rules



WRH Brand Series Rated Power Input Note 2-4 digits 100 ----- 1KW 200 ----- 2KW 300 ---- 3KW 500 ----- 5KW 1200 ----- 12KW 2400 ---- 24KW





Low-temp. Low and Cold Air Drying is suitable for Highprotein products, highly volatile aromatic herbs and other scented products, such as flower and herb .Low-temperature drying not only can retain the active ingredients of goods, but also can keep its original color.



Application: Fish processing, Tea processing, Sea Cucumber processing, dried Bird's Nest, and other valuable medicinal herbs.



Mid-temp.

System mainly works on 55°C -63°C temperature range, so can maintain good characteristics and high drying efficiency for most of the products. Some materials such as bacon and sausage may experience shape changes at a certain temperature during the drying process.



Application: Various kinds of fruits and vegetables, towel for beauty salon, sausage, herbs, and other agricultural products.

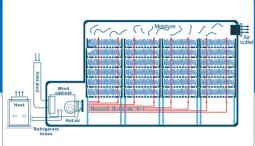


High-temp. System mainly works on 65°C −75°C temperature range, widely applicable for products which are not sensitive to temperature such as ceramic pigment pottery and plastic granules. High temp. drying can also achieve sterilization drying function.



Application: Food Processing, Tea drying, Meat drying, Tobacco processing and high-sugar content fruit processing.

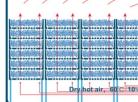




Open Cycle Heat Pump Drver

IKE Closed-Loop **Heat Pump** Drver





50 0/80% Humid hot air 1. Water Dry hot air. 60 C / 10%

Problem 1: Tend to cause sanitary problems

Since there is an air inlet, the material to be dried is easily contaminated by outside pollutants such as dust and bugs.



Since the air from the dryer to the drying house cannot be too strong, moisture will accumulate on the ceiling of the house to form dripping water.



Problem 4: Weather dependent, low efficiency in winter time

The machine is installed outside the drying house, its performance is easily affected by the surrounding weather.

Problem 5:Sophisticated installation and maintenance

The core machine is connected with the drying house by many pipes, resulting in inconvenient installation and difficult maintenance. A professional has to be hired for installation and maintenance.

Problem 6: Material quality heavily affected by high temp.

High temperature drying causes (fragrant) materials to easily lose its active ingredients, degrading the quality.

Problem 7: Hard to achieve even drying

Airflow convection is not strong enough to dry all material. In order to achieve even drying effects, the material must be manually flipped periodically.





Feature 1: Energy saving and environment protecting

Hot air only circulates inside and no energy is lost. Drying efficiency is independent of external weather conditions. Only water is released from a drying house. The energy saving is incomparable to traditional drying machines.



Feature 2:Independent of weather and location

With inside core machine, the performance of the dryer is independent of external weather conditions and it can be installed in any location.



Feature 3: High quality drying

No active ingredient exchange with low temperature drying, hence different materials can be dried together to increase productivity.



Feature 4: Clean and hygienic

No air exchange with outside keeps active ingredients in the material, prevents contamination, and maintain efficient drying.



Feature 5: Not to become mouldy, not to deteriorate

With dehumidification drying at low temperatures, the material can be dehydrated quickly and will seldom deteriorate.



Feature 6:No need to flip, reduced labor

Closed-loop design makes strong wind convection and even drying. No human labor is needed to flip material.



Feature 7: Fast installation, simple maintenance

Since the core machine is pushed in directly with no pipe connection, it can be installed within ten minutes.



HIGH QUALITY PRODUCTS WITH HIGH QUALITY ACCESSORIES

With unique creativity, IKE engineers have so far invented and manufactured six IC cards for data communication, data collection, system monitoring and reliable power supply.

Guided by the principle of "Quality First", we use the best possible parts, with the best possible craftsmanship, to manufacture best quality products with the most economical prices, achieving a revolutionizing breakthrough in drying industry.



High Precision Sensors



Brand-name Contactors



Special Digital Communication Modules



Superior Quality Copper Pipes



Highly Efficient Special Purpose Compressors



Hydrophilic Heat Exchangers



Brand-name Electromagnetic Valves & Drying Device



Centrifugal Fans with Extra Large Air Volume



Electronic Expansion Valves



High Precision Temperature Sensor





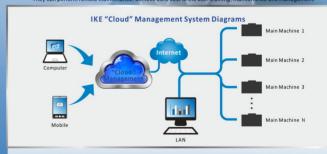


IKE "Cloud" Management

Intelligent "Cloud" **Management System**

- IKE 's new "Cloud" Management System, through LAN or internet to connect multiple WRH series dryers, centralized
 monitoring, management and maintenance by a computer or mobile, is an innovation in the drying industry to remote
- Can connect to LAN or Internet, to achieve regional and long distance operation.
 One computer can manage several dryers within the network to obtain the operation status information of the machine
- 3. Real -Time Alarm for system failure, minimizes property damage due to system failure

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"Cloud" Management Interface



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WRH-100B Stainless Steel · Cabinet-style All-in-one Dehydrator

Specifications	for WRH-100B
Material	Stainless Steel
Capacity	20~100kg/batch
Power Supply	220V~ 50Hz/60Hz
Input Power	1.0kw
Running Current	5.0A
Fast heating-up	1.0kw
Maximum Power	2.2kw
Dehydration Amount	3.5kg/h (@50°C,80%)
Working Temp.	50~65°C
Controller	IKE Smart color-touch-screen
Noise Level	≤60dB(A)
Wind Volume	1100m³/h
Machine Dimension (L×W×H)	1180×680×1800mm
Tray Size(L×W×H)	780×540×30mm
Tray Number	15pcs
Net Weight	160kg
Gross Weight	180kg



◆All data in this poster are for reference only. Please see manuals for precise ones. ◆

WRH-100T Stainless Steel Cabinet-style All-in-one Dehydrator

Specifications	for WRH-100T
Material	Stainless Steel
Capacity	20~100kg/batch
Power Supply	220V~ 50Hz/60Hz
Input Power	1.0kw
Running Current	5.0A
Fast heating-up	1.0kw
Maximum Power	2.2kw
Dehydration Amount	3.0kg/h (@50°C,80%)
Working Temp.	20~80°C
Controller	IKE Smart color-touch-screen
Noise Level	≤60dB(A)
Wind Volume	1100m³ /h
Machine Dimension (L×W×H)	1180×680×1800mm
Tray Size(L×W×H)	780×540×30mm
Tray Number	15pcs
Net Weight	170kg
Gross Weight	190kg











WRH-100D · Cabinet-style All-in-one Low-temperature Dehydrator

Specifications	for WRH-100D
Material	Stainless Steel
Capacity	20~100kg/batch
Power Supply	220V~ 50Hz/60Hz
Input Power	1.0kw
Running Current	5.0A
Fast heating-up	1.0kw
Maximum Power	2.2kw
Dehydration Amount	3.0kg/h (@50°C,80%)
Working Temp.	20~60°C
Controller	IKE Smart color-touch-screen
Noise Level	≤60dB(A)
Wind Volume	1100m³ /h
Machine Dimension (L×W×H)	1180×680×1800mm
Tray Size(L×W×H)	780×540×30mm
Tray Number	15pcs
Net Weight	170kg
Gross Weight	190kg















WRH-100G · Cabinet-style All-in-one High-temperature Dehydrator



	for WRH-100G
Material	Stainless Steel
Capacity	20~100kg/batch
Power Supply	220V~ 50Hz/60Hz
Input Power	1.0kw
Running Current	5.0A
Fast heating-up	1.0kw
Maximum Power	2.2kw
Dehydration Amount	3.0kg/h (@50°C,80%)
Working Temp.	50~80°C
Controller	IKE Smart color-touch-screen
Noise Level	≤60dB(A)
Wind Volume	1100m³/h
Machine Dimension (L×W×H)	1180×680×1800mm
Tray Size(L×W×H)	780×540×30mm
Tray Number	15pcs
Net Weight	160kg
Gross Weight	180kg















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WRH-300B Cabinet-style All-in-one Mid-temperature Dehydrator

	for WRH-300B
Material	Stainless Steel
Capacity	200-350kg/batch
Power Supply	220V~ 50Hz/60Hz
Input Power	3.0kw
Running Current	15.0A
Fast heating-up	3.0kw
Maximum Power	6.0kw
Dehydration Amount	10.0kg/h (@50°C,80%)
Working Temp.	50~65°C
Controller	IKE Smart color-touch-screen
Noise Level	≤60dB(A)
Wind Volume	6500m³/h
Machine Dimension (L×W×H)	1880×980×2100mm
Tray Size(L×W×H)	780×540×30mm
Tray Number	40pcs
Net Weight	250kg
Gross Weight	275kg













WRH-300GB Cabinet-style All-in-one High-temperature Dehydrator

	for WRH-300GB
Material	Stainless Steel
Capacity	200~350kg/batch
Power Supply	220V~ 50Hz/60Hz
Input Power	3.0kw
Running Current	15.0A
Fast heating-up	3.0kw
Maximum Power	6.0kw
Dehydration Amount	10.0kg/h (@50°C,80%)
Working Temp.	50~80°C
Controller	IKE Smart color-touch-screen
Noise Level	≤60dB(A)
Wind Volume	6500m³/h
Machine Dimension (L×W×H)	1880×980×2100mm
Tray Size(L×W×H)	780×540×30mm
Tray Number	40pcs
Net Weight	250kg
Gross Weight	275kg







Construction Guide for WRH-100 Series

WRH-100B/D/G is an all-in-one machine. A customer simply needs to connect it to a power supply and turn on the machine. No installation and testing is required. This is the most convenient heat pump drying machine in the market!



Construction Guide for WRH-300 Series



Specifications	for WRH-200A
Material	Stainless Steel
Capacity	150~250kg/batch
Power Supply	220V~ 50Hz/60Hz
Input Power	2.0kw
Running Current	10.0A
Fast heating-up	2.2kw
Maximum Power	4.2kw
Dehydration Amount	6.5kg/h (@50°C,80%)
Working Temp.	50~65°C
Noise Level	≤65dB(A)
Wind Volume	2300m³ /h
Machine Dimension (L×W×H)	950×400×840mm
Chamber Size(L×W×H)	3600×1200×2000mm
Net Weight	75kg
Gross Weight	90kg













WRH-200G · Commercial High-temperature Dehydrator



Specifications	for WRH-200G
Material	Stainless Steel
Capacity	150~250kg/batch
Power Supply	220V~ 50Hz/60Hz
nput Power	2.0kw
Running Current	10.0A
ast heating-up	2.0kw
Maximum Power	4.2kw
Dehydration Amount	6.0kg/h (@50°C,80%)
Vorking Temp.	50~80°C
loise Level	≤65dB(A)
Wind Volume	2300m³ /h
Machine Dimension (L×W×H)	950×400×840mm
Chamber Size(L×W×H)	3600×1200×2000mm
let Weight	75kg
Gross Weight	90kg





























WRH-300G · Embedding High-temperature Dehydrator



	ons for WRH-300G
Material	Stainless Steel
Capacity	200~350kg/batch
Power Supply	220V~ 50Hz/60Hz
Input Power	3.0kw
Running Current	15.0A
Fast heating-up	3.0kw
Maximum Power	6.5kw
Dehydration Amount	9.0kg/h (@50°C,80%)
Working Temp.	50~80°C
Noise Level	≤65dB(A)
Wind Volume	2300m³ /h
Machine Dimension (L×W×I	H) 1150×400×840mm
Chamber Size(L×W×H)	3600×1200×2000mm
Net Weight	80kg
Gross Weight	95kg















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WRH-500A Embedding Mid-temperature Dehydrator

Material	Stainless Steel
Capacity	400~600kg/batch
Power Supply	380V~3N / 50Hz/60Hz
nput Power	5.0kw
Running Current	15.0A
ast heating-up	4.5kw
Maximum Power	11kw
Dehydration Amount	15.0kg/h (@50°C,80%)
Working Temp.	50~65°C
Noise Level	≤70dB(A)
Wind Volume	4000m³/h
Machine Dimension (L×W×H)	1800×680×1320mm
Chamber Size(L×W×H)	5000×2100×2400mm
Net Weight	170kg
Gross Weight	190kg



WRH-500D · Embedding Low-temperature Dehydrator











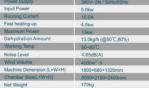






WRH-500G · Embedding High-temperature Dehydrator



















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WRH-1200 Embedding Dehydrator

00~1500kg 80V~3N / 50Hz/60Hz 3.0kw 0.0A
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3kw
0.0kg/h (@50°C,80%)
VRH-1200A: 50~65°C
VRH-1200G: 50~80°C
72dB(A)
000m³/h×2
800×800×1620mm
000×2650×2700mm





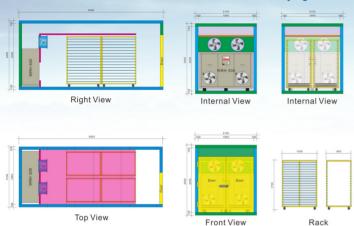
Technology Parameters

Material	Stainless Steel
Power Supply	380V~3N / 50Hz / 60Hz
Input Power	13.0kw
Running Current	20.0A
Fast heating-up	9.0kw
Maximum Power	24kw
Dehydration Amount	40.0kg/h (@50°C,80%)
Working Temp.	50~65°C
Noise Level	≤72dB(A)
Wind Volume	4000m³/h×2+2200m³/h
Machine Dimension (L×W×H)	1250×800×1920mm
Gross Weight	390kg

Specifications for Flow Lines		
Power Supply	380V~3N / 50Hz / 60Hz	
Power Input	0.1-8.0kw variable frequencies to adjust	
Maximum current	10A	
Maximum Power Consumption	8.0kw	
Layer number	1-10 layers to choose	
Operation speed	0m/min-2m/min to adjust	
Chain width	1.0-6.0 to choose	
Chain material	201, 304, 316 Stainless steel to choose	
Chain length per layer	1.5m-12m to choose	

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Recommended Dimensions for WRH-500 Series Standard Drying House



Recommended Dimensions for WRH-1200 Series Standard Drying House

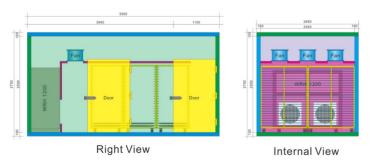
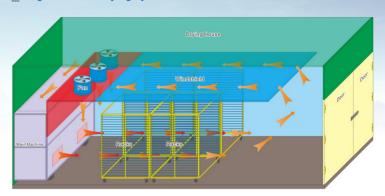
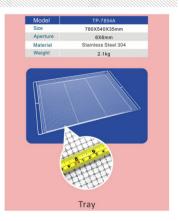


Diagram for IKE Drying System



Accessories

Model	FTHJ-300UP	FTHJ-300DN
Size	1200X800X1200mm	1200X800X820mm
Material	Stainless Steel 201	Stainless Steel 201
Weight	40kg	20kg
	Rack for WRH-	300B/GB



Application of closed loop Heat Pump dehydrator

Drying Result Using IKE Closed-Loop Dehydration Dryer Mold-proof, Good-looking, Fragrant-smelling, Easy to store



Poor-looking, Likely to deteriorate, Loss of nutrition Drying Result Using Traditional Drying Method

Comparison of brewing and restoration results of the dried products



Fruits from the same tree were dried using the traditional method (left) and IKE dryer (right).
The fruits dried with the traditional method were charred or

The fruits dried with the traditional method were charred or deteriorated. However, the fruits dried with IKE machine have a natural and fresh appearance without any sign of mold.



When the fruit dried with the traditional method is brewed, the brewed water is black and contains foreign flavor. However, the brewed water from the fruit dried with IKE machine is clear and only contains its original sweet and fragrant taste.







The product dried with IKE machine has excellent restoration, indicating no damage to it during the drying process. The dried product will restore to its original shape once it is immersed in water.



- Fruits: apple, mango, longan, kiwi, grape
- Vegetables: mushroom, cilantro, onion, potato
- Meat: chicken, sausage, bacon
- Seafood: fish, kelp, seaweed
- Industrial Materials: hotel linen, waste sludge, porcelain
- Others: tobacco, medicine

- IKE dryers can be organized in a parallel way. This allows them to not interfere with each other, to be controlled by a common system.
- Different materials can be dried at the same time in one IKE machine without any exchange of fragrance or taste.
- IKE closed-loop dehydration dryers are very energy-efficient. Once the drying center is established, the investment can be regained within a short time.















































Vegetables drying













