国家高新技术企业 | 西部大旗 WESTERN FLAG®

Drying equipments (2024)

PRODUCT CATALOGS

Sichuan Western Flag Drying Equipment Co., Ltd

Sichuan Western Flag Drying Equipment Co., Ltd

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Company profile

Sichuan Western Flag Drying Equipment Co., Ltd. is a wholly-owned subsidiary of Sichuan Zhongzhi Qiyun General Equipment Co., Ltd. a technology-based company that integrates R&D, production, and sales of drying equipment. The self-built factory is located at No. 31, Section 3, Minshan Road, National Economic Development Zone, Deyang City, covering a total area of 13,000 square meters, with a R&D and testing center covers an area of 3,100 square meters.

The parent company Zhongzhi Qiyun, as a key supported project in Deyang City that is a national high-tech enterprise, a technological and innovative medium-sized enterprise, and has obtained more than 40 utility model patents and one national invention patent. The company has independent import and export rights and is a pioneer in cross-border e-commerce in the drying equipment industry in China. Over the past 15 years since its establishment, the company has operated with integrity, actively shouldered social responsibilities, and has been consistently named as an A-level taxpayer enterprise.

From the beginning of construction, the company has heavily invested in scientific research and development, focusing on the technological research of agricultural products, medicine stuffs and meat products, as well as the development of advanced equipment. Factory has 115 advanced processing machines, including laser cutting, laser welding, and digital bending. There are 48 skilled technicians and 10 engineers, all of whom have graduated from prestigious universities.

Since its establishment, the company has nurtured two major industrial brands, "Western Flag" and "Chuanyao," and created the first agricultural product drying equipment supply chain in the western region of China. In response to the dual-carbon goals, the company continuously innovates and develops new energy drying equipment that is suitable for large-scale and low-carbon energy-efficient production of meat products, fruits, vegetables, and medicine stuffs.

Corporate culture

Company Mission

- Solving drying problems with minimal energy consumption and maximum environmental benefits worldwide

Company Vision

- Become the largest equipment supplier and trading platform in the drying equipment industry, create more than two excellent industrial brands
- Pursue product quality, continue to carry out research and development innovation, so that customers can use intelligent, energy-saving, and safe products; become a well-respected international equipment supplier
- Sincerely care for employees; cultivate an open, non-hierarchical working atmosphere; allow employees to work with dignity and pride, be able to self-manage, self-discipline, and continue to learn and progress

Core Value

- Be diligent in learning, be honest and trustworthy, be innovative and creative, and do not take shortcuts.









Enterprise honor











Application area

Fruits and vegetables



Meats



Herbs



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PART 01

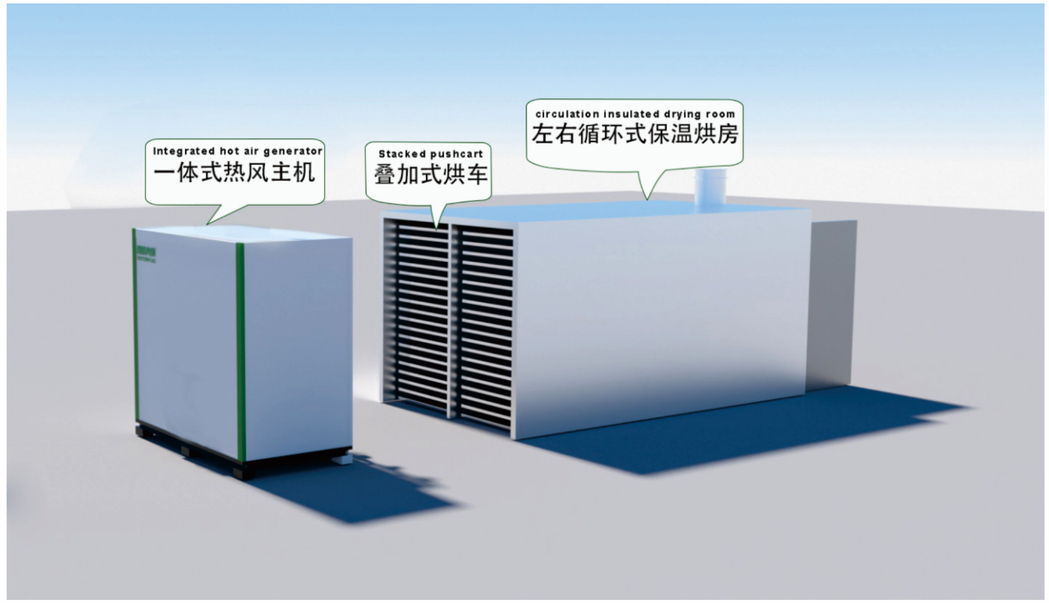
RED-FIRE SERIES DRYING ROOM

Red-fire T series

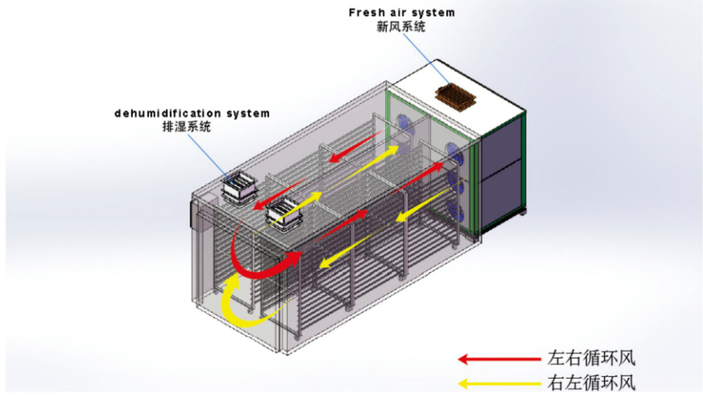
1 Product overview

The Red-Fire series drying room is a leading hot air convection drying room that developed by our company special for the tray-type drying which is widely recognized both domestically and internationally. It adopts a design with left-right/right-left periodic alternating hot air circulation. The hot air is used cyclic after generation, ensuring uniform heating of all stuffs in all directions and enabling quick temperature rise and rapid dehydration. The temperature and humidity can be automatically controlled, greatly reducing production energy consumption. This product has obtained a utility model patent certificate.

2 Renderings



3 Perspective drawing



4 Product advantage

PLC

The control system adopts PLC programming + LCD touch screen, which can set up to 10 segments of temperature and humidity settings. Parameters can be adjusted according to the different properties of the stuff that make the drying process is not affected by external environmental factors, ensuring excellent color and high quality of the finished product.

One button start for unattended operation, automation, The machine stops after finish set drying program. It can be equipped with a remote control system, mobile app remote monitoring.

360°

Left-right/right-left 360° alternating hot air circulation, ensuring uniform heating of all stuffs in the drying room, avoiding uneven temperature and mid-process adjustment.

The circulation fan take a high-temperature resistant, high-airflow, long-life axial flow fan, ensuring sufficient heat and rapid temperature rise in the drying room.

Various sources can be used, such as air heat pumps, natural gas, steam, electricity, biomass pellet, coal, firewood, diesel, hot water, thermal oil, methanol, gasoline, etc., depending on the local conditions.

Modular drying room which consisted of a hot air generator + drying room + drying pushcart. Low transportation cost and convenient installation. It can be assembled by two people in one day.

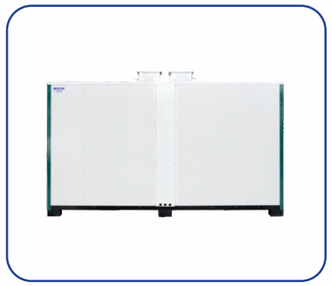
The shells of hot air generator and drying room both are made of high-density fire-resistant insulation cotton + sprayed/stainless steel sheet which are beautiful and durable.

5 Specification sheet

No.	Item	Unit	Model			
1	Name	/	HH1000	HH2000A	HH2000B	HH3300
2	Structural	/	Van type			
3	Outer dimensions (L*W*H)	mm	5000 × 2200 × 2175	5000 × 4200 × 2175	6600 × 3000 × 2175	7500 × 4200 × 2175
4	Fan power	KW	0.55*6+0.9	0.55*12+0.9*2	0.55*12+0.9*2	0.75*12+0.9*4
5	Hot air temperature range	℃	Atmospheric temperature~120			
6	Loading capacity (Wet stuff)	kg/ batch	1000-2000	2000-4000	2000-4000	3300-7000
7	Effective drying volume	m^3	20	40	40	60
8	Number of pushcarts	set	6	12	12	20
9	Number of Material trays	pcs	90	180	180	300
10	Stacked pushcart dimensions (L*W*H)	mm	1200*900*1720mm			
11	Material of tray	/	Stainless steel/Zinc plating			
12	Effective drying area	m^2	97.2	194.4	194.4	324
13	Hot air machine model	/	10	20	20	30
14	External Outer dimension of Hot air machine (L*W*H)	mm	1160 × 1800 × 2100	1160 × 3800 × 2100	1160 × 2800 × 2100	1160 × 3800 × 2100
15	Fuel/medium	/	Air energy heat pump, natural gas, steam, electricity, biomass pellet, coal, wood, hot water, thermal oil, methanol, gasoline and diesel			
16	Heat output of hot air machine	Kcal/h	10×10^4	20×10^4	20×10^4	30×10^4
17	Voltage	/	380V 3N			
18	Control system	/	7 inch touch screen			

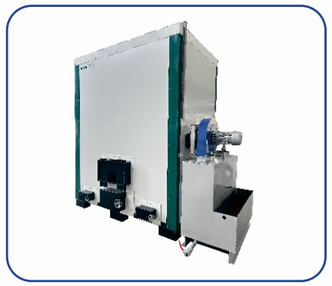
6 Real photos







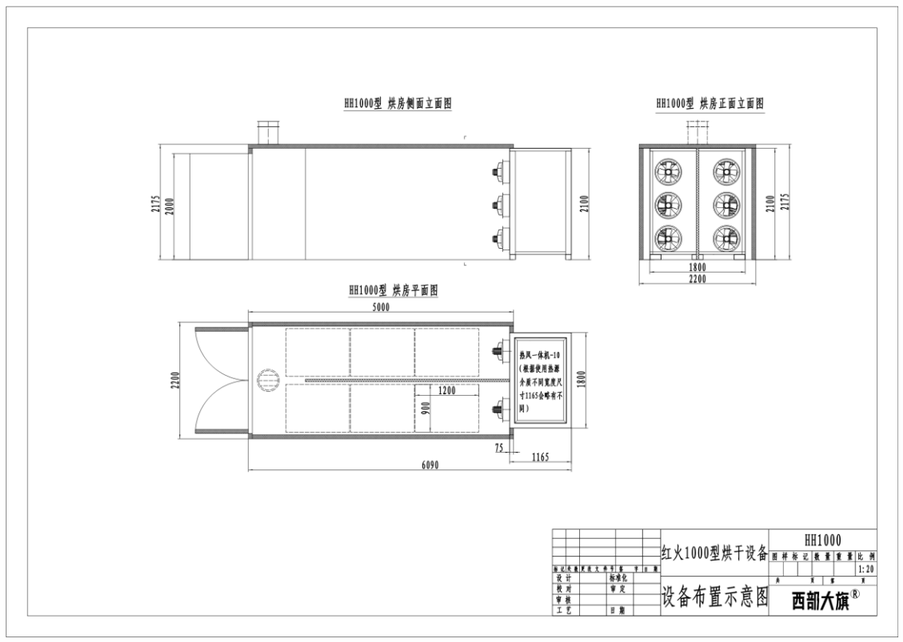




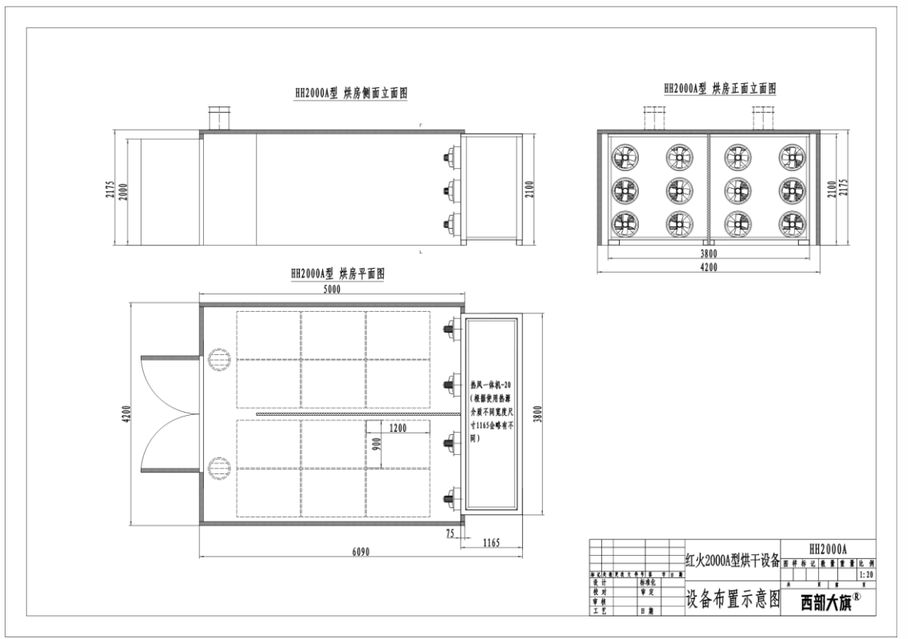




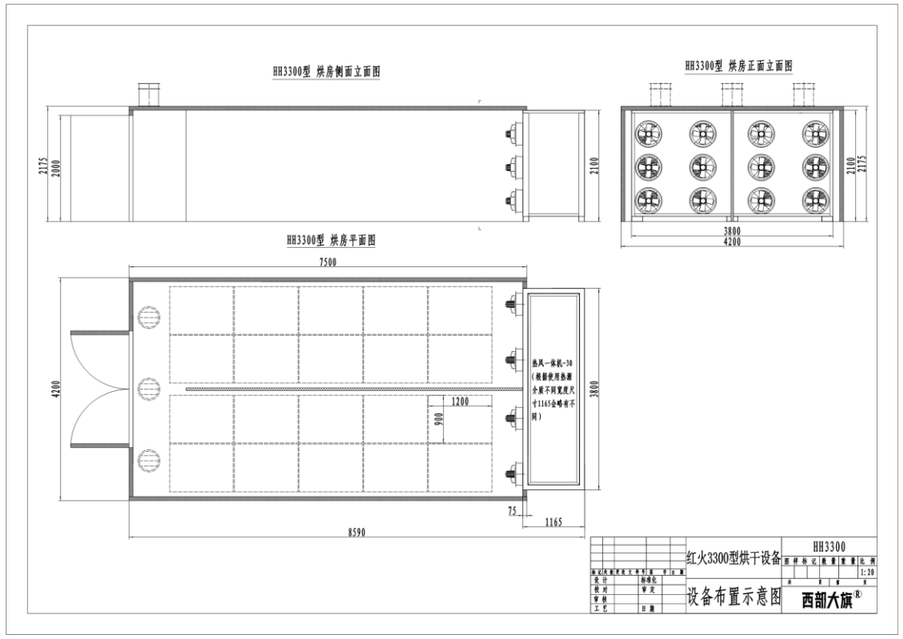
7 Dimension drawing



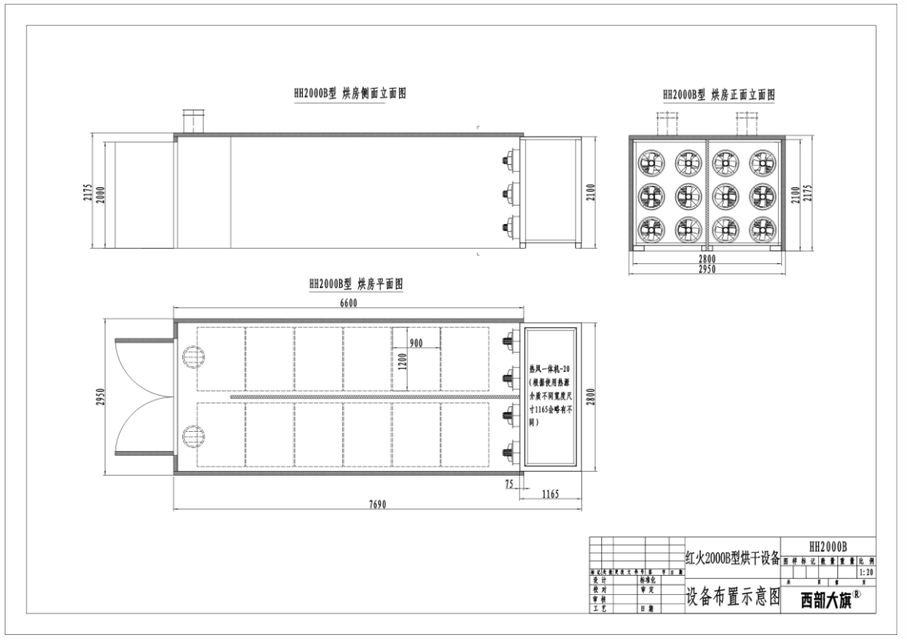
HH1000型



HH2000A型



HH3300型



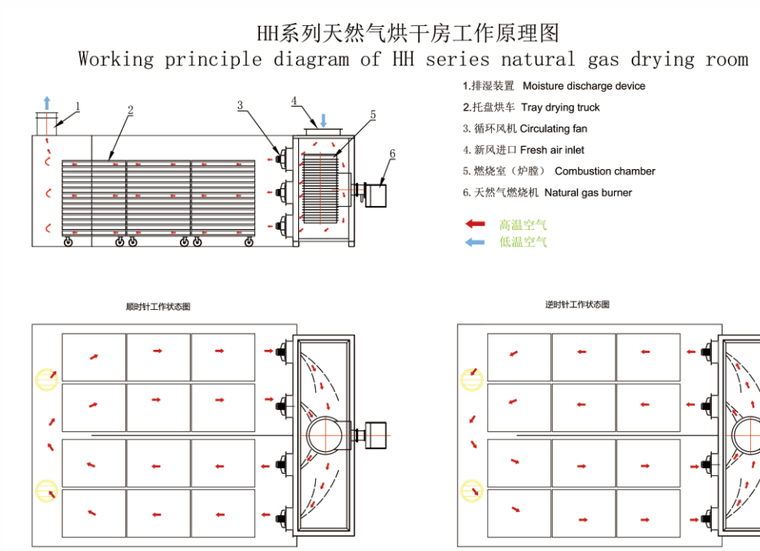
HH2000B型

The red-fire T series (Natural gas drying room)

1 Advantages

- Inner tank of the burner is made of high-temperature resistant stainless steel, durable.
- Automatic gas burner is equipped with automatic ignition, shutdown, and temperature adjustment functions ensuring complete combustion. Thermal efficiency above 95%.
- Temperature rises rapidly and can reach 200℃ with a special fan.
- Automatic control, one button start for unattended operation.

2 Working schematic diagram



3 Components



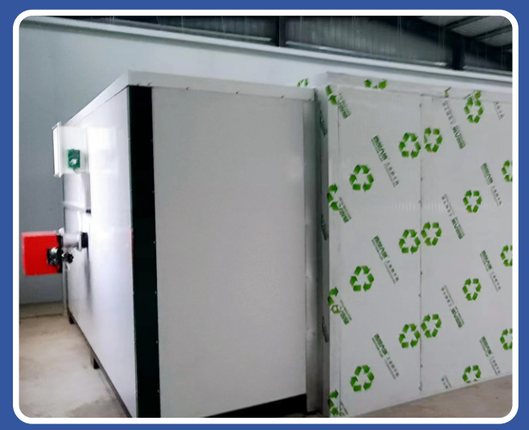




4 Real photos











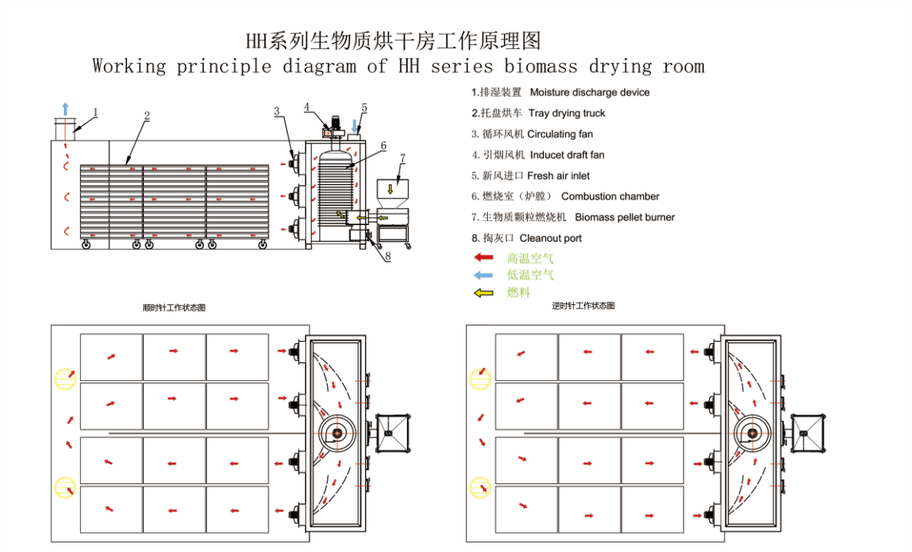


The red-fire S series (Biomass furnace drying room)

1 Advantages

- Inner tank of the burner is made of high-temperature resistant stainless steel, durable
- Automatic biomass burner is equipped with automatic ignition, shutdown, and temperature adjustment functions ensuring complete combustion. Thermal efficiency above 95%.
- Temperature rises rapidly and can reach 150℃ with a special fan.
- Multiple rows of finned tubes for heat dissipation, heat conversion efficiency over 80%, providing clean and pollution-free hot air.

2 Working schematic diagram



3 Components







4 Real photos















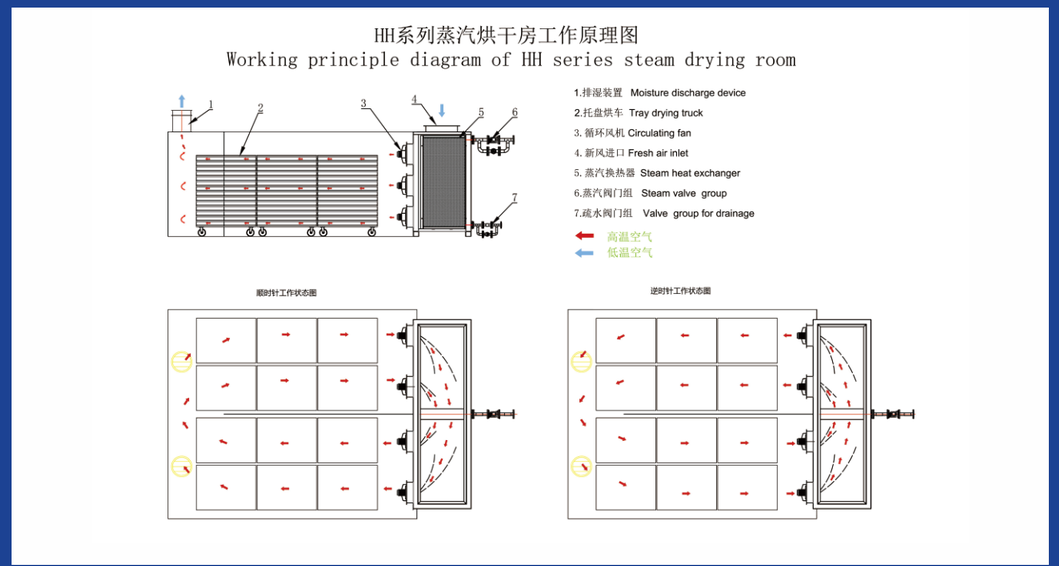


The red-fire Z series (Steam drying room)

1 Advantages

- Utilizing rich steam source, heat transfer oil, or hot water, low energy consumption.
- Solenoid valve controls the flow, automatically opening&closing, precise temperature control, and low air fluctuation;
- Temperature rises rapidly and can reach 150℃ with a special fan. (steam pressure is more than 0.8 MPa)
- Multiple rows of finned tubes for heat dissipation, seamless fluid tubes for the main tube with high pressure resistance; fins are made of aluminum or stainless steel, high efficiency heat.

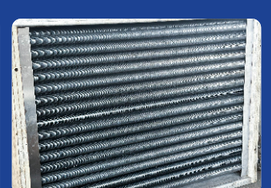
2 Working schematic diagram



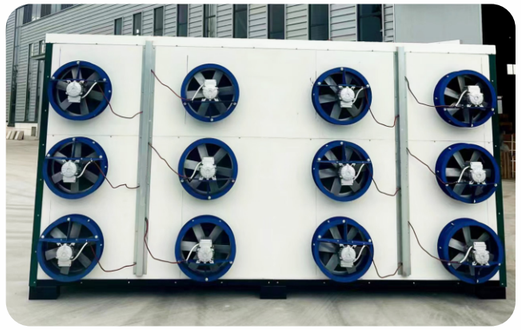
3 Components





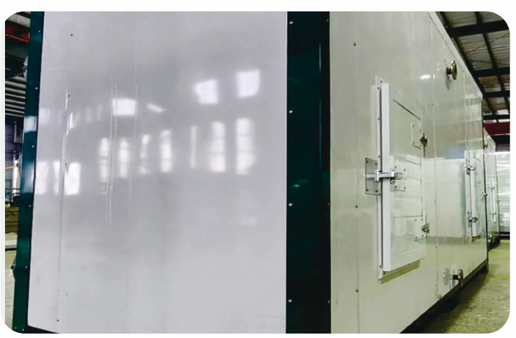


4 Real photos







The red-fire D series (Electric drying room)

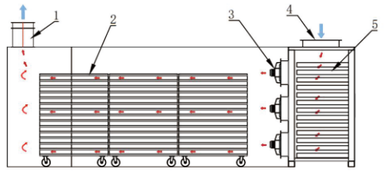
1 Advantages

- Low cost, environmentally friendly with no carbon emissions.
- Group start and stop, low load, precise temperature control, low air fluctuations.
- Temperature rises rapidly and can reach 200℃ with a special fan.
- Stainless steel electric heating finned tube, durable.

2 Working schematic diagram

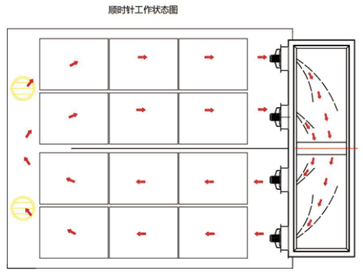
HH系列电加热烘干房工作原理图

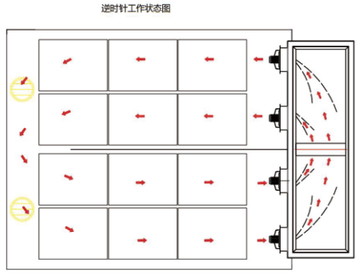
Working principle diagram of HH series electric heater drying room



1.排湿装置 Moisture discharge device
2.托盘烘车 Tray drying truck
3. 循环风机 Circulating fan
4. 新风进口 Fresh air inlet
5. 电加热器 Electric heater

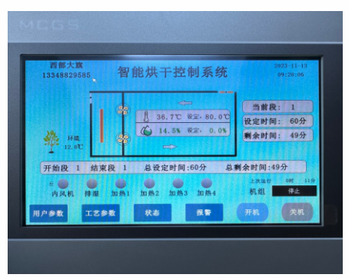
高温空气
低温空气





3 Components







4 Real photos















The red-fire K series (Air energy drying room)

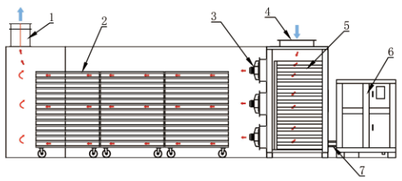
1 Advantages

- High thermal efficiency, heat transfer is achieved by driving the compressor to transfer heat, one unit of electricity can be used as three units of electricity.
- Operating temperature ranges from atmosphere temperature to 75°C.
- Environmentally friendly with no carbon emissions.
- Sufficient electric auxiliary heating, can quickly heat up.

2 Working schematic diagram

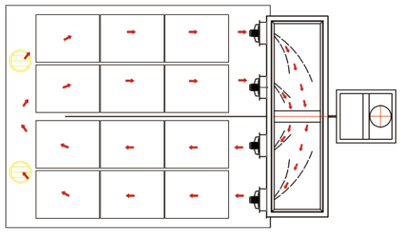
HH系列空气能烘干房工作原理图

Working principle diagram of HH series electric heater drying room

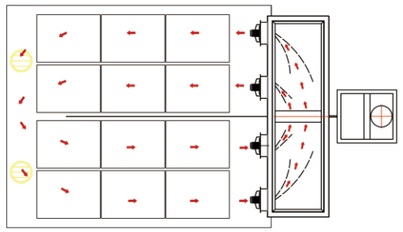


1.排湿装置 Moisture discharge device
2.托盘烘车 Tray drying truck
3. 循环风机 Circulating fan
4. 新风进口 Fresh air inlet
5. 空气能室内机 Air energy heat pump indoor unit
6.空气能室外机 Air energy heat pump outdoor unit
7.联接管道 Connecting pipes
高温空气
低温空气

顺时针工作状态图



逆时针工作状态图



3 Components









4 Real photos



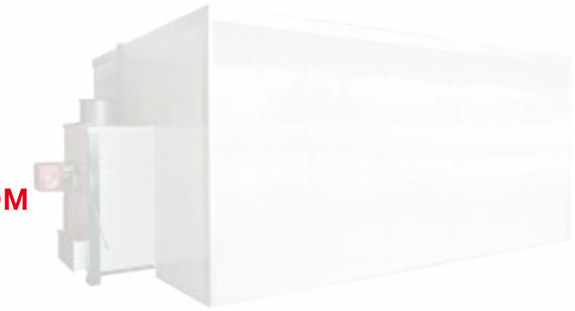






PART 02

STARLIGHT SERIES DRYING ROOM

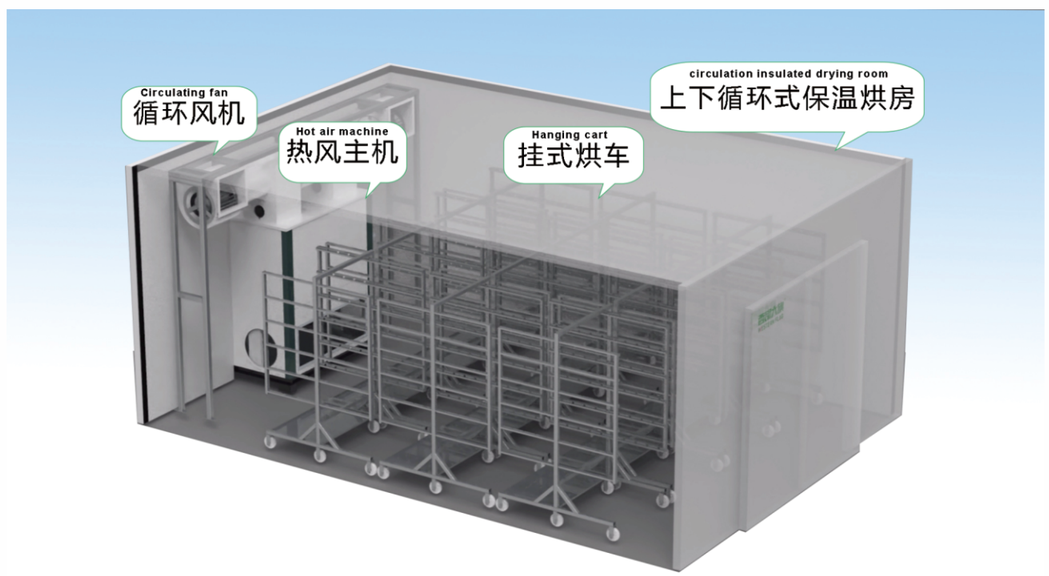


Starlight series

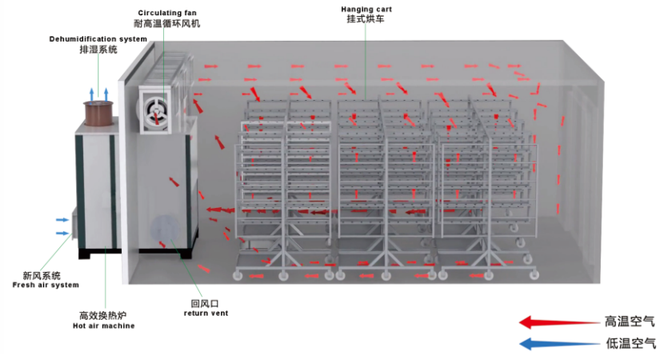
1 Product overview

The Starlight series drying room is a leading hot-air convection drying room that developed by our company special for hanging stuffs, which is advanced both domestically and internationally. It adopts a design with heat circulation from top to bottom, allowing the recycled hot air to evenly heat all stuffs in all directions. It can quickly increase temperature and facilitate rapid dehydration. The temperature and humidity are automatically controlled, and equipped with a waste heat recovery device, greatly reducing energy consumption during machine running. This series has obtained one national invention patent and three utility model patent certificates.

2 Renderings



3 Perspective drawing



4 Product advantage

- The control system adopts PLC programming + LCD touch screen, which can set up to 10 segments of temperature and humidity settings. Parameters can be adjusted according to the different properties of the stuff that make the drying process is not affected by external environmental factors, ensuring excellent color and high quality of the finished product.
- One button start for unattended operation, automation, The machine stops after finish set drying program. It can be equipped with a remote control system, mobile app remote monitoring.
- Upper and lower hot air circulation heating, ensuring uniform heating of all stuffs in the drying room, avoiding uneven temperature and mid-process adjustment.
- The circulation fan take a high-temperature resistant, high-airflow, long-life axial flow fan, ensuring sufficient heat and rapid temperature rise in the drying room.
- Various sources can be used, such as air heat pumps, natural gas, steam, electricity, biomass pellet, coal, firewood, diesel, hot water, thermal oil, methanol, gasoline, etc., depending on the local conditions.
- Modular drying room which consisted of a hot air generator + drying room + drying pushcart. Low transportation cost and convenient installation. It can be assembled by two people in one day.
- The shells of hot air generator and drying room both are made of high-density fire-resistant insulation cotton + sprayed/stainless steel sheet which are beautiful and durable.
- The integrated hot air generator has a built in hydrophilic aluminum foil waste heat recovery device, which aims to recover heat from the moisture, can reduce energy consumption. It is save more 50% energy than direct exhaust drying rooms

5 Specification sheet

No.	Item	Unit	Model				
1	Name	/	XG500	XG1000	XG1500	XG2000	XG3000
2	Structural	/	Van type				
3	Outer dimensions (L*W*H)	mm	2200 × 4200 × 2800	3200 × 5200 × 2800	4300 × 6300 × 2800	5400 × 6300 × 2800	6500 × 7400 × 2800
4	Fan power	KW	0.55*2+0.55	0.9*3+0.9	1.8*3+0.9*2	1.8*4+0.9*2	1.8*5+1.5*2
5	Hot air temperature range	℃	Atmosphere temperature~120				
6	Loading capacity (Wet stuff)	kg/ batch	500	1000	1500	2000	3000
7	Effective drying volume	m^3	16	30	48	60	84
8	Number of pushcarts	set	4	9	16	20	30
9	Hanging cart dimensions (L*W*H)	mm	1200*900*1820mm				
10	Material of hanging cart	/	304 stainless steel				
11	Hot air machine model	/	5	10	20	20	30
12	External Outer dimension of Hot air machine (L*W*H)	mm	930*350*1230	1200*1600*1700			
13	Fuel/medium	/	Air energy heat pump, natural gas, steam, electricity, biomass pellet, coal, wood, hot water, thermal oil, methanol, gasoline and diesel				
14	Heat output of hot air machine	Kcal/h	5×10^4	10×10^4	20×10^4	20×10^4	30×10^4
15	Voltage	/	380V 3N				
16	Control system	/	7 inch touch screen				

6 Real photos





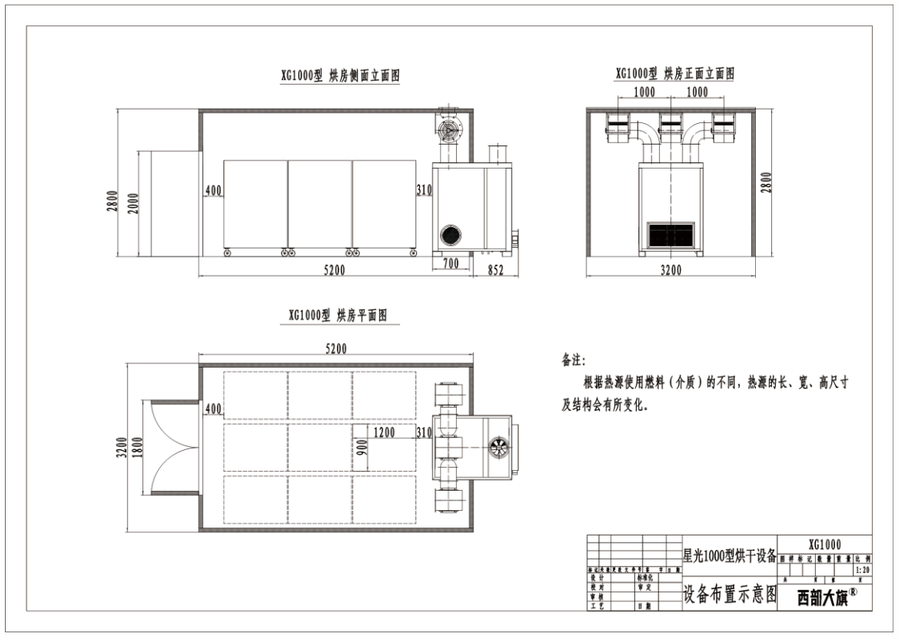




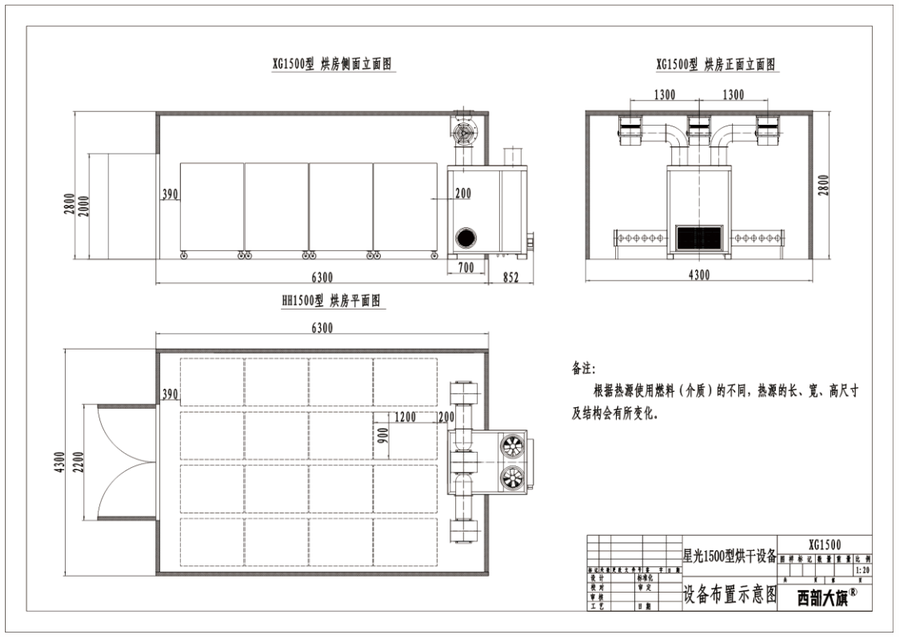




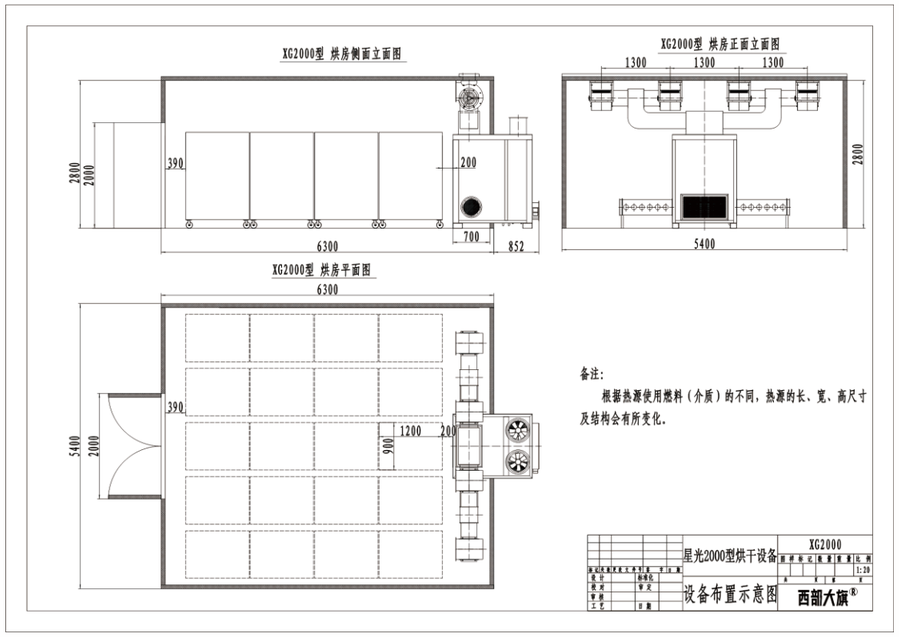
7 Dimension drawing



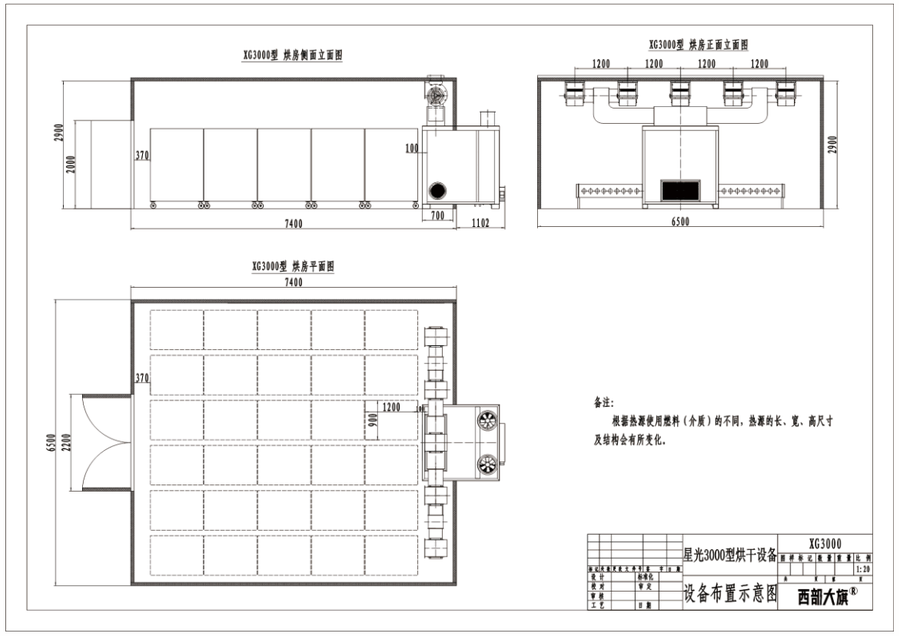
XG1000型



XG1500型



XG2000型



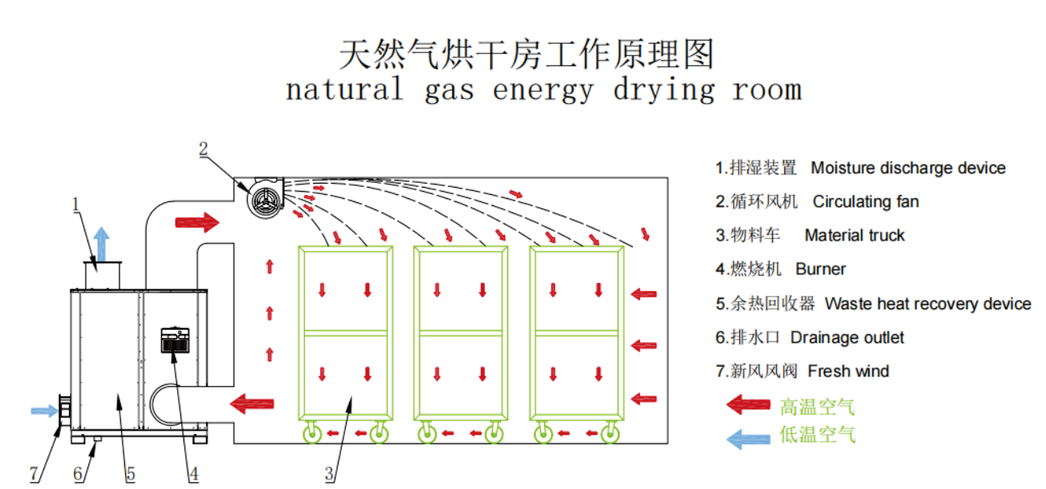
XG3000型

The Starlight T series (Natural gas drying room)

1 Advantages

- Inner tank of the burner is made of high-temperature resistant stainless steel, durable.
- Automatic gas burner is equipped with automatic ignition, shutdown, and temperature adjustment functions ensuring complete combustion. Thermal efficiency above 95%.
- Temperature rises rapidly and can reach 200℃ with a special fan.
- Automatic programmable touchscreen control system, one button start for unattended operation.
- Built in a hydrophilic aluminum foil dual waste heat recovery device, achieving energy savings and emissions reduction both over 20%.

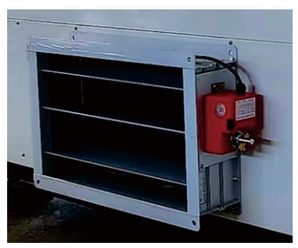
2 Working schematic diagram



3 Components





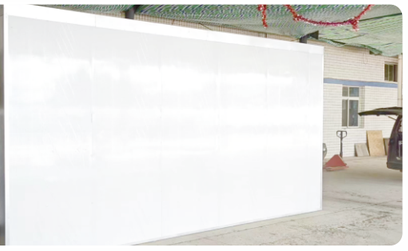


4 Real photos









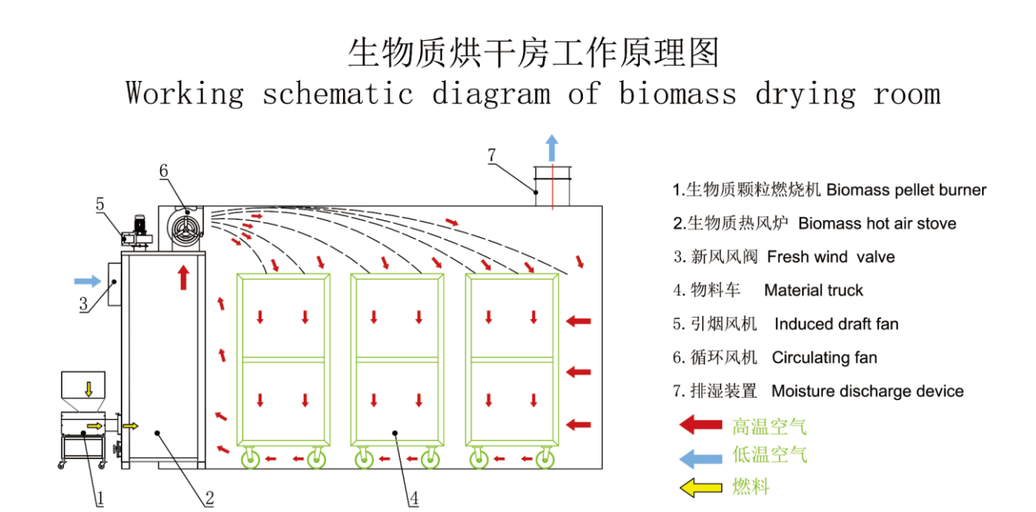



The starlight S series (Biomass energy drying room)

1 Advantages

- Inner tank of the burner is made of high-temperature resistant stainless steel, durable.
- Automatic biomass burner is equipped with automatic ignition, shutdown, and temperature adjustment functions ensuring complete combustion. Thermal efficiency above 95%.
- Temperature rises rapidly and can reach 150 °C with a special fan.
- Multiple rows of finned tubes for heat dissipation, heat conversion efficiency over 80%, providing clean and pollution-free hot air

2 Working schematic diagram

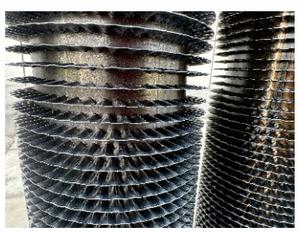


3 Components







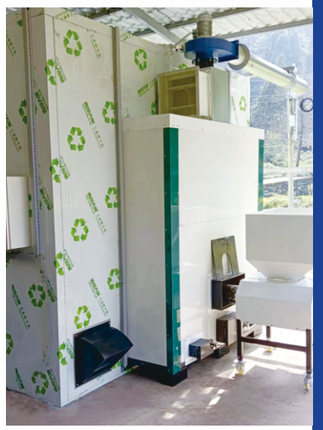


4 Real photos









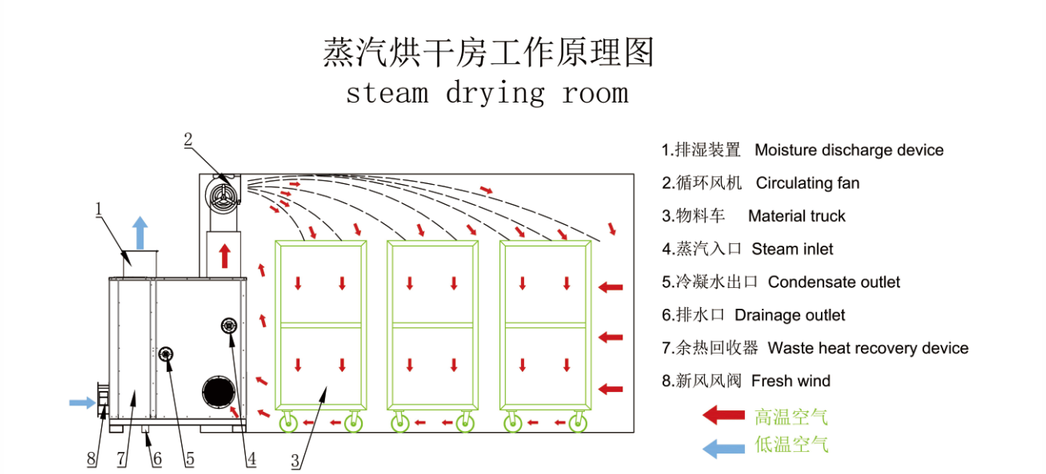


The starlight Z series (Steam drying room)

1 Advantages

- Utilizing rich steam source, heat transfer oil, or hot water, low energy consumption.
- Solenoid valve controls the flow, automatically opening&closing, precise temperature control, and low air fluctuation.
- Temperature rises rapidly and can reach 150°C with a special fan. (steam pressure is more than 0.8 MPa) .
- Multiple rows of finned tubes for heat dissipation, seamless fluid tubes for the main tube with high pressure resistance; fins are made of aluminum or stainless steel, high efficiency heat.
- Built in a hydrophilic aluminum foil dual waste heat recovery device, achieving energy savings and emissions reduction both over 20%.

2 Working schematic diagram



3 Components







4 Real photos





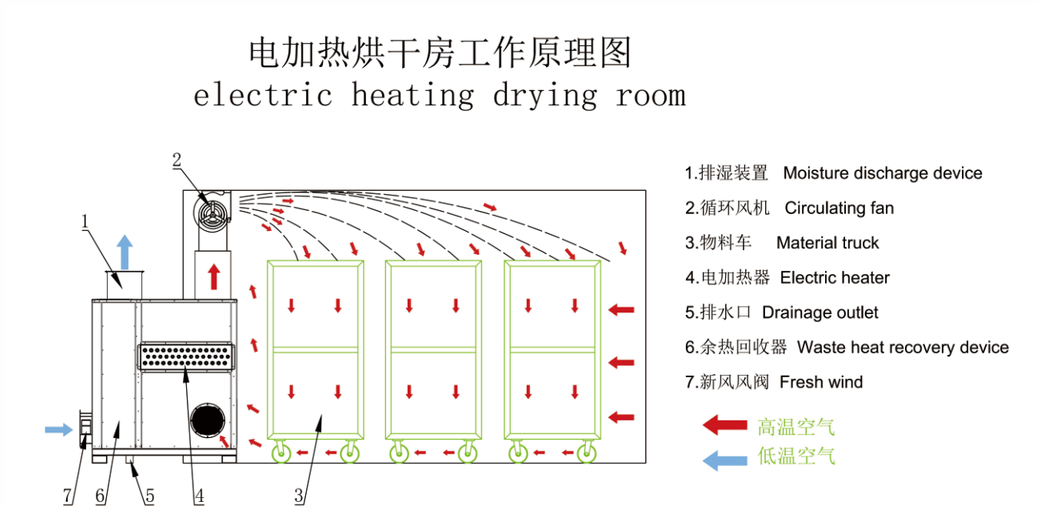


The starlight D series (Electric drying room)

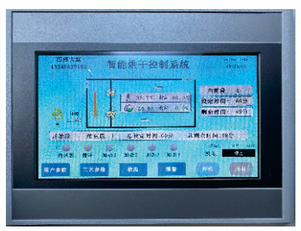
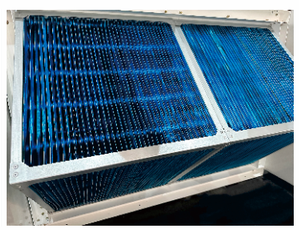
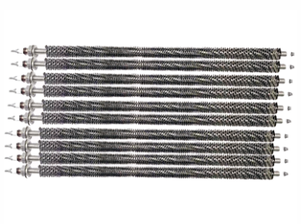
1 Advantages

- Low cost, environmentally friendly with no carbon emissions.
- Group start and stop, low load, precise temperature control, low air fluctuations.
- Temperature rises rapidly and can reach 200°C with a special fan.
- Stainless steel electric heating finned tube, durable.
- Built in a hydrophilic aluminum foil dual waste heat recovery device, achieving energy savings and emissions reduction both over 20%.

2 Working schematic diagram



3 Components

4 Real photos





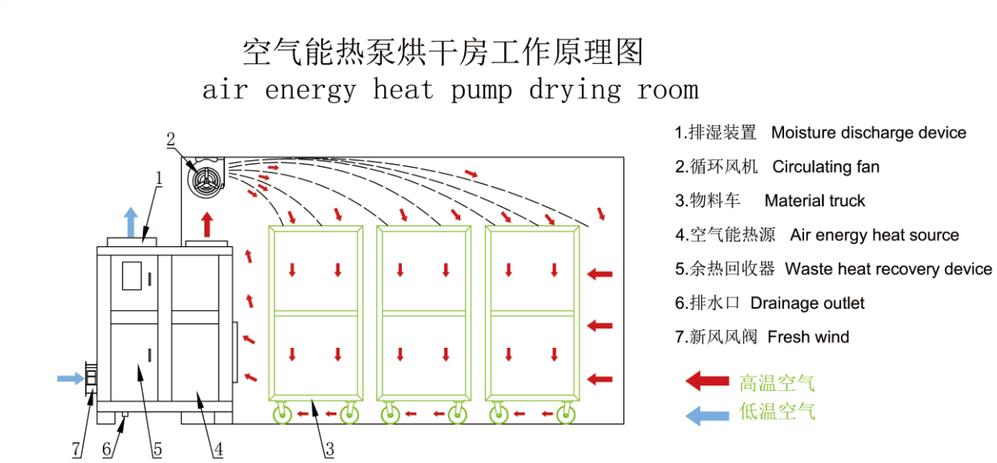



The starlight K series (Air energy drying room)

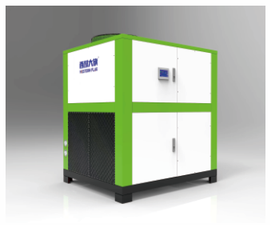
1 Advantages

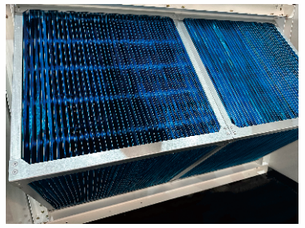
- High thermal efficiency, heat transfer is achieved by driving the compressor to transfer heat, one unit of electricity can be used as three units of electricity.
- Operating temperature ranges from atmosphere temperature to 75°C.
- Environmentally friendly with no carbon emissions.
- Sufficient electric auxiliary heating, can quickly heat up.
- Built in a hydrophilic aluminum foil dual waste heat recovery device, achieving energy savings and emissions reduction both over 20%.

2 Working schematic diagram



3 Components




4 Real photos








L Series cold air drying room

1 Introduction

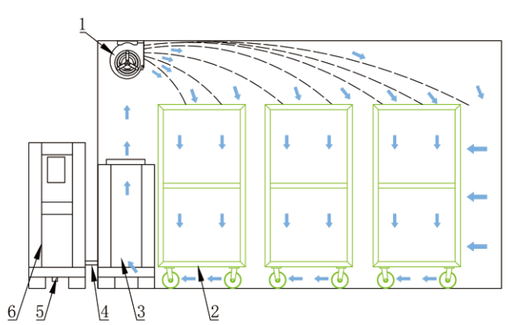
The cold air drying room is apply the process: utilize air with low temperature and low humidity, realize a forced circulation between stuffs, gradually reducing stuffs moisture content to reach the required level.
In the process of forced circulation, the low temperature and low humidity air continuously absorbs moisture from the surface of stuffs, the saturated air passes through the evaporator, due to the evaporation of the refrigerant, surface temperature of the evaporator drops below the atmosphere temperature. The air is cooled, the moisture is extracted, after that extracted moisture is discharged by the water collector. The low temperature and low humidity air then enters the condenser again, where the air is heated by the high temperature gaseous refrigerant from the compressor, forming dry air, then it mixes with the saturated air to generate low temperature and low humidity air, which circulates repeatedly. Stuffs dried by the cold air dryer not only maintain their original quality, but also be more convenient for packaging, storage and transportation.

2 Product features

- Temperature: 5-40°C adjustable.
- Simulate the natural environment of autumn and winter to achieve natural drying effect, resulting in firm texture of the meat without oxidation or deterioration.
- Temperature and humidity control to adjust according to the drying process of each stuffs;
- Suitable for low-temperature air drying in the meat, poultry, aquatic products, seafood, medicinal herbs industries, etc.
- Uniform drying process makes a preservation of nutrients, retention of unique flavor, no deformation or discoloration.

3 Working schematic diagram

冷风烘干房工作原理图
Working principle diagram of cold air drying room



1.循环风机 Circulating fan
2.物料车 Material truck
3.室内冷风机组 Indoor air conditioning unit
4.联接管道 Connecting pipes
5.排水口 Drainage outlet
6.室外机 Outdoor unit

低温空气

4 Real photos








PART 03

INTEGRAL DRYING ROOM



1 Introduction

This drying room is suitable for drying stuffs between 500-1500 kg. Temperature is adjustable and controllable, after the hot air enters the room, it touches and circulates through all the stuffs by the high-temperature resistant and high-humidity resistant axial flow fan. The direction of the circulating air is controlled by a PLC (Programmable Logic Controller) for forward/reverse rotation, accurately controlling the temperature and dehumidifying. The moisture is automatically expelled through the top fan of drying room, achieving uniform and rapid drying of stuffs on each layers.

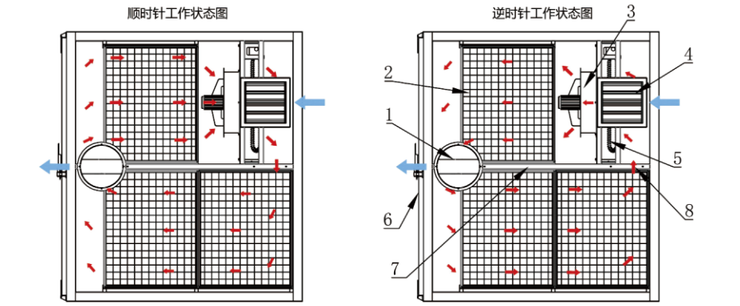
2 Specification sheet

No.	Item	Unit	Model		
1	Name	/	HXD-54	HXD-72	HXS-108
2	Outer dimensions(L*W*H)	mm	2000x2300x2100	3000x2300x2100	4000 × 2300 × 2100
3	Loading method	/	Tray/hanging		
4	Number of trays	pcs	54	72	108
5	Tray size(L*W)	mm	800X1000		
6	Effective drying area	㎡	43.2	57.6	86.4
7	Design loading capacity	kg/batch	300-500	400-600	600-900
8	Temperature	℃	Atmosphere-100		
9	Total installed power	Kw	26	38	3
10	Total installed power	Kw	24	36	/
11	Amount of hea	Kcal/h	20640	30960	80000
12	Circular mode	/	Customized on demand	Customized on demand	Customized on demand
13	Moisture discharge	Kg/h	≤24	≤36	≤48
14	Circulating flow	m^3/h	12000	16000	20000
15	Materials	/	Insulation layer: A1 high-density rock wool purification board.Bracket and sheet metal: Q235, 201, 304Spraying process: baking paint		
16	Noise	dB(A)	65		
17	Control form	/	PLC programmable automatic control program +7-inch LCD touch screen		
18	Protection grades	/	Class 1 electric shock protection		
19	Suitable stuff	/	Meat, vegetables, fruits and medicinal materials.		

3 Working schematic diagram

54盘电加热烘箱工作原理图

54 tray electric heating drying oven



1.排湿装置 Moisture discharge device 2.物料托盘 Material tray 3.循环风机 Circulating

4.新风风阀 Fresh wind 5.电加热器 Electric heater 6. 烘箱门 Oven door

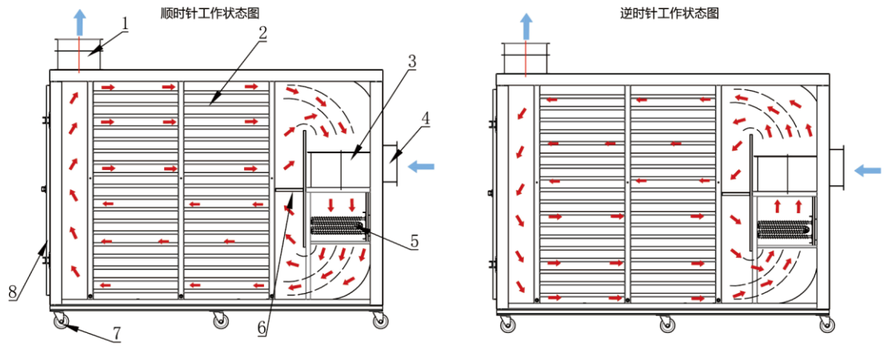
7. 隔板 Partition 8. 过风通道 Air duct

高温空气

低温空气

72盘电加热烘箱工作原理图

72 tray electric heating drying oven



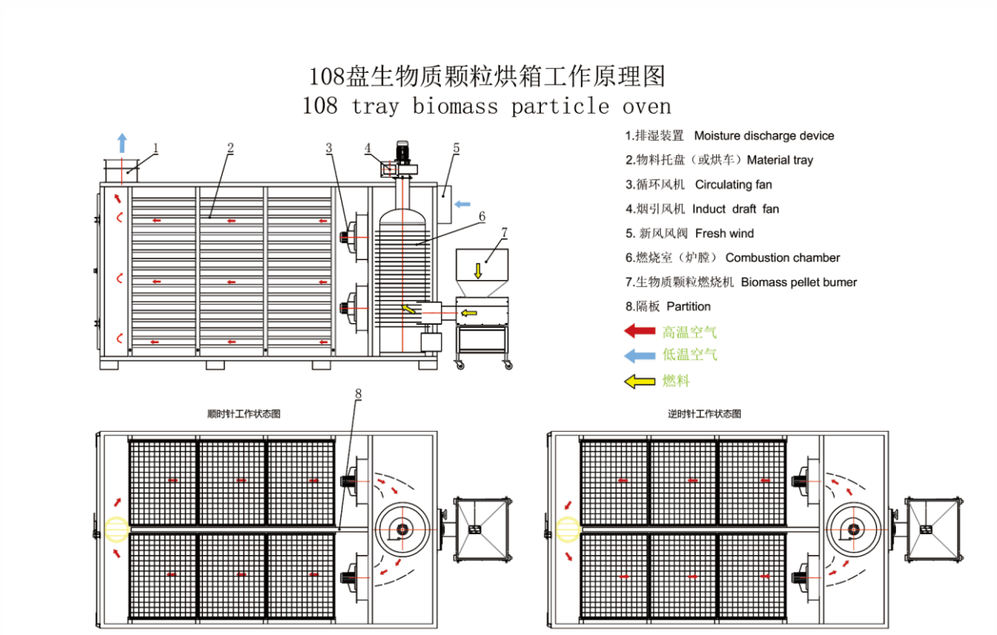
1.排湿装置 Moisture discharge device 2.物料托盘 Material tray 3.循环风机 Circulating

4.新风风阀 Fresh wind 5.电加热器 Electric heater 6.分风板 Air distribution board

7.万向轮 Universal wheel 8.烘箱门 Oven door

高温空气

低温空气

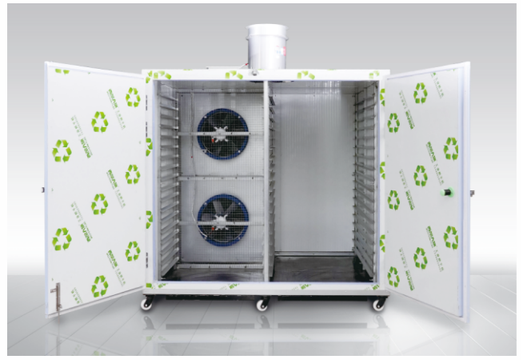


4 Real photos

























PART 4

MESH BELT DRYER

1 Introduction

The mesh belt dryer is a batch, continuous production drying equipment. Mainly heated by electric heating, steam heating, natural gas hot air, and air energy heating. It's main principle is to evenly spread stuffs on the mesh belt, which uses a 12-60 meshes steel wire mesh or chain mesh, and is driven by a transmission device to move back and forth within the dryer, allowing the hot air to flow through those stuffs, then moisture to be discharged from the dehumidification system, thereby achieving the purpose of drying.

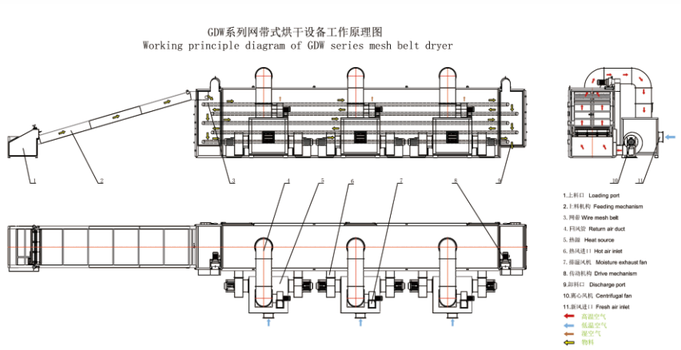
The length of body is composed of standard sections, and in order to save space, the dryer can be made into a multi-layer structure, commonly with 3 - 7 layers, with a length of 6 - 40m and an effective width of 0.6 - 3.0m. The speed of the mesh belt can be adjusted according to the material temperature and moisture requirements, and length can also be selected as needed.

For example, in processing of drying of vegetables, multiple devices are generally used in series to form preliminary drying, middle drying, and final drying stages. In the preliminary drying stage, due to the high moisture content and poor air permeability of vegetables, a thinner stuffs thickness, faster running speed, and higher drying temperature should be used. For stuffs that should not exceed 60 , the hot air temperature in the preliminary drying stage can be as high as 120 or more. The stuff residence time in the final drying stage is 3-6 times that of the preliminary drying stage, and the stuff thickness is 2-4 times that of the preliminary drying stage, hot air drying at around 80 can be used. The use of multi-stage combined drying can better utilize the performance of the belt dryer, resulting in more uniform drying.

2 Product features

- Low investment, fast drying, and high evaporation intensity.
- High efficiency, large output, and good product quality.
- Standardized production, and the number of sections can be increased according to requirements.
- Air volume, heating temperature, stuffs residence time, and feeding speed can be adjusted to achieve the best drying effect.
- Flexible equipment configuration with the use of mesh belt flushing system and stuff cooling system.
- Most of air is circulates, savings energy significantly.
- Unique air distribution device is providing more even hot air distribution, ensure consistent product quality.
- The heat source can be steam, air energy pump, thermal oil, electric, or gas, biomass furnace.

3 Working schematic diagram



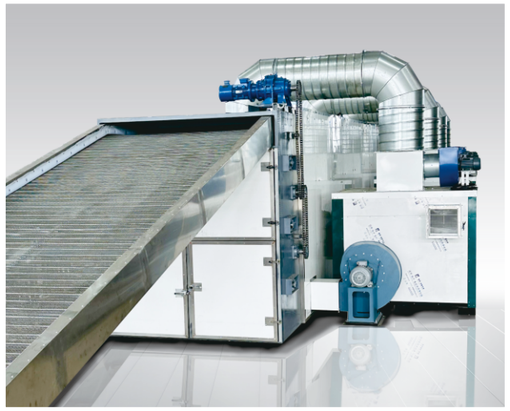
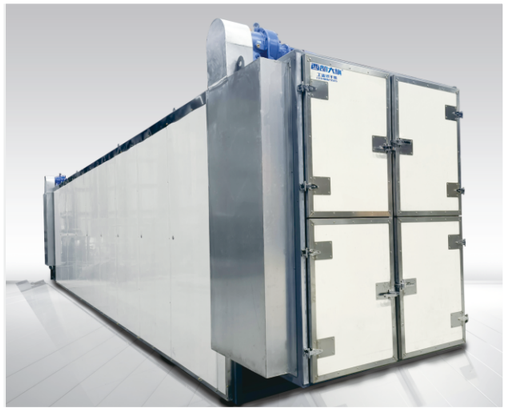
4 Application

This equipment is mainly suitable for drying small pieces of stuffs as well as sheet, strip and granular with good fiber and good air permeability. It is very suitable for products such as vegetables and traditional medicine pieces that have high moisture content, cannot be dried at high temperatures, and require final shape of the stuff to be maintained. Typical materials include konjac, pepper, jujube, wolfberry, honeysuckle, yuanhu slices, chuanxiong slices, chrysanthemums, grass, dried radish, day lilies, etc.

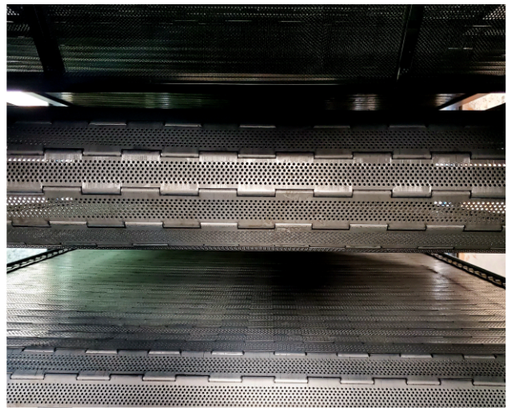
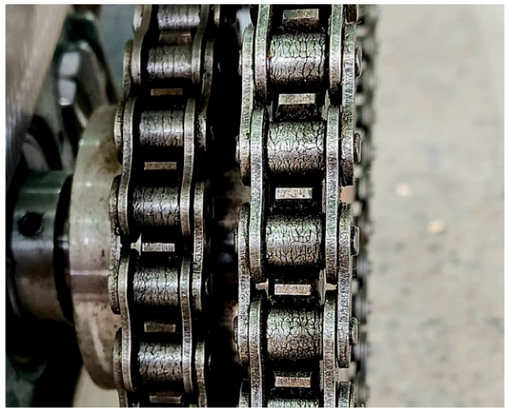
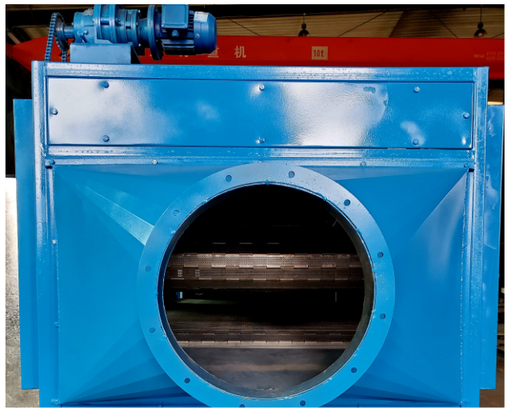
5 Technical Parameters

Model	GDW 1.0-12	GDW 1.2-12	GDW 1.5-15	GDW 1.8-18	GDW 2.0-20	GDW 2.4-24
Unit	6	6	8	8	10	10
Bandwidth	1	1.2	1.5	1.8	2	2.4
Drying length (m)	12	12	15	18	20	24
Stuffs thickness	10~80mm					
Available temperature	60~130℃					
Steam pressure	0.2~0.8Mpa					
Steam consumption (Kg/h)	120~300	150~375	150~375	170~470	180~500	225~600
Heating area(5 layers) (㎡)	60	72	112.5	162	200	288
Drying time (h)	0.5-10	0.5-10	1.2-12	1.5-15	2-18	2-20
Drying intensity (Kg/h.㎡)	3-8					
Fan quantity	4	4	6	8	8	10
Total power of equipment (kW)	24	30	42	54	65	83
Outer size (m)	18.75	18.75	21.75	25.75	27.75	31.75
	1.6	1.8	2.2	2.5	2.7	3
	2.96	2.96	2.96	2.96	3.35	3.35

6 Real photos








PART 05

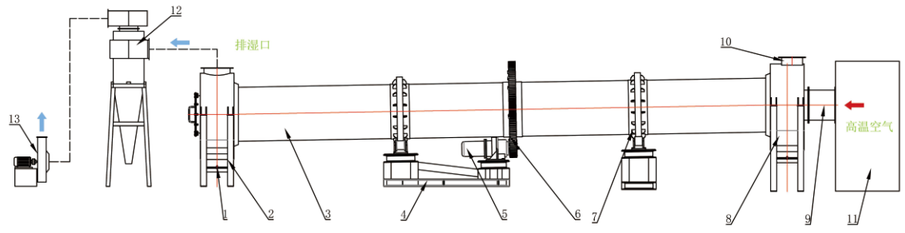
ROTARY DRUM DRYER

Rotary drum dryer is one of the most traditional drying equipment. Because of its stable operation and wide application, it is widely used in metallurgy, building materials, chemical industry, agricultural and sideline products processing and other fields.
The wet material is sent to the hopper by the belt conveyor or bucket elevator and added by the feed port. The main body of the rotary drum dryer is a cylinder with slight inclination and can rotate. When the material enters into the cylinder, it is dried in direct or counter current with the hot air passing through the cylinder or in effective contact with the heated wall. After drying, the product is discharged from the lower part of the other end. In the drying process, the material moves from the higher end to the lower end under the action of gravity with the help of the slow rotation of the cylinder. The inner wall of the cylinder is equipped with a forward reading board, which constantly picks up and drinks the materials, greatly increasing the hot contact surface of the materials improving the drying rate and promoting the materials to move forward. After the heat carrier (hot air, flue gas) dries the materials the dust entrained in it is collected by the cyclone and then discharged.

Continuous discharge rotary drum dryer

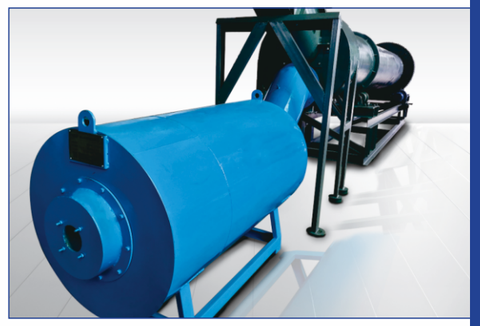
1 Working schematic diagram

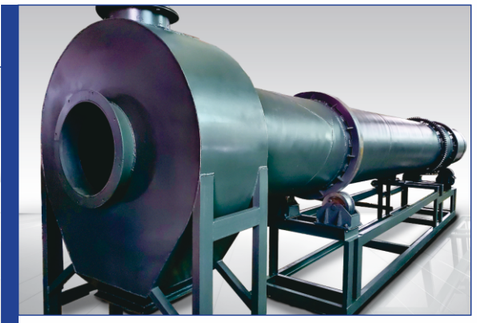
连续出料滚筒烘干机工作原理图
Working principle diagram of Continuous discharge drum dryer



1.出料口 Outlet
2.窑尾 Kiln tail
3.滚筒 The drum
4. 大底座 The large base
5. 减速机构 Reduction mechanism
6. 传动齿轮 Transmission to gear
7.导向装置 Guiding device
8.窑头 Kiln head
9. 热风风机 Hot air fan
10. 进料口 Feed port
11. 热源装置 Heat source device
12. 旋风分离器 Cyclone separator
13. 引风机 Induced draft fan
高温空气
低温空气

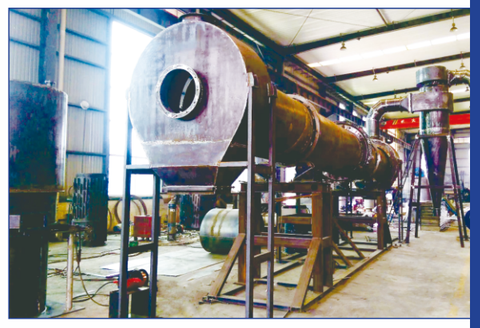
2 Real photos

















Intermittent discharge rotary drum dryer

Thermal convection type

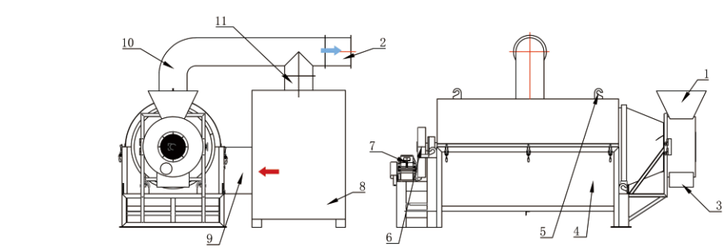
Rotary drum dryer is one of the most traditional drying equipment. Because of its stable operation and wide application, it is widely used in metallurgy, building materials, chemical industry, agricultural and sideline products processing and other fields.
The wet material is sent to the hopper by the belt conveyor or bucket elevator and added by the feed port. The main body of the rotary drum dryer is a cylinder with slight inclination and can rotate. When the material enters into the cylinder, it is dried in direct or counter current with the hot air passing through the cylinder or in effective contact with the heated wall. After drying, the product is discharged from the lower part of the other end. In the drying process, the material moves from the higher end to the lower end under the action of gravity with the help of the slow rotation of the cylinder. The inner wall of the cylinder is equipped with a forward reading board, which constantly picks up and drinks the materials, greatly increasing the hot contact surface of the materials, improving the drying rate and promoting the materials to move forward. After the heat carrier (hot air, flue gas) dries the materials, the dust entrained in it is collected by the cyclone and then discharged.

Features

- Variety of fuel options, such as biomass pellet, natural gas, electricity, steam, coal, and more, which can be chosen based on local situation.
- Stuffs continuously tumble, lifted to the highest point inside the drum by the lifting plate before falling down. Come in full contact with the hot air, rapid dehydration, shortening the drying time.
- The excess heat is fully recovered during exhaust gas emission, saving energy by more than 20%.
- Functions like temperature adjustment, dehumidification, stuffs feeding and discharging, automatic control by setting programs, one button start, no need manual operation.
- Optional automatic cleaning device, which initiates high-pressure water washing after the drying process, cleaning the interior and preparing it for the next use.

1 Working schematic diagram

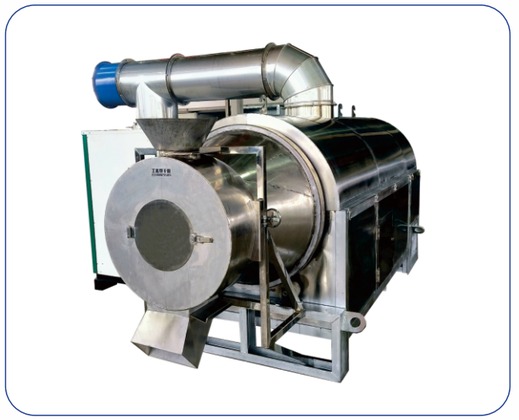
(热对流式)间歇出料滚筒烘干机工作原理图
Working principle diagram of Gap discharge drum dryer



1.进料口 Feed port　2.排湿风机 Dehumidification fan　3.出料口 Outle　4.滚筒 The drum
5.吊钩 Cliver　6.传动齿轮 Transmission to gear　7.减速机构 Reduction mechanism　8.热源 Heat source
9.热风出口 Hot air outlet　10.回风管 Return duct　11.回风口 Return air inlet
高温空气
低温空气

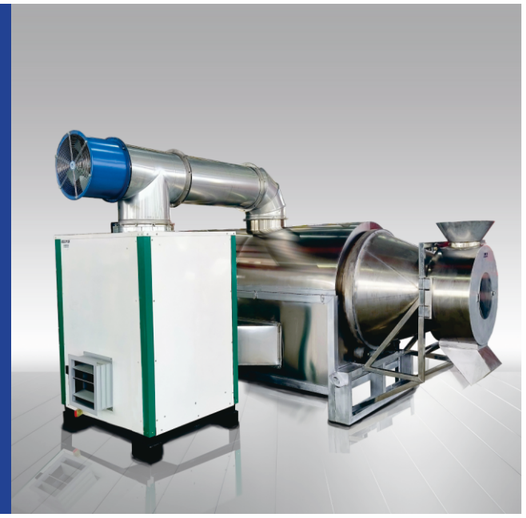
2 Real photos













Thermal conduction type

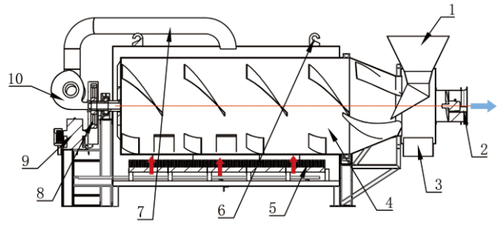
The thermal conduction type intermittent discharge rotary drum dryer is a fast dehydration and drying device developed by our company special for solid stuffs such as powder, granular, and slurry. It consists of six parts: feeding system, transmission system, drum unit, heating system, dehumidification system, and control system. The feeding system starts and the transmission motor rotates forward to convey stuffs into the drum. After that, the feeding system stops and the transmission motor continues to rotate forward, tumbling stuffs. At the same time, the heating system at the bottom of the drum starts and heats the drum wall, transferring heat to those stuffs inside. Once the humidity reaches emission standard, the dehumidification system starts to remove moisture. After drying, the heating system stops working, the transmission motor reverses to discharge the materials, completing this drying operation.

Features

- Variety of fuel options, such as biomass pellet, natural gas, electricity, steam, coal, and more, which can be chosen based on local situation.
- Stuffs continuously tumble, lifted to the highest point inside the drum by the lifting plate before falling down. Come in full contact with the drum inner tank, rapid dehydration, shortening the drying time.
- Powder, paste, and slurry stuffs can be used without leakage.
- Functions like temperature adjustment, dehumidification, stuffs feeding and discharging, automatic control by setting programs, one button start, no need manual operation.
- Optional automatic cleaning device, which initiates high-pressure water washing after the drying process, cleaning the interior and preparing it for the next use.

Working schematic diagram

(热传导式)间歇出料滚筒烘干机工作原理图
Working principle diagram of Gap discharge drum dryer



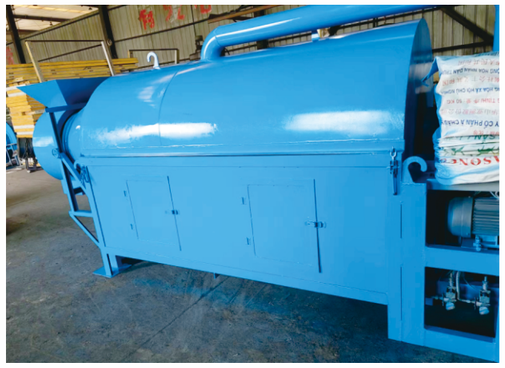
1.进料口 Feed port
2.排湿风机 Dehumidification fan
3.出料口 Outle
4. 滚筒 The drum
5. 炉排 Fire grate
6. 吊钩 Cliver
7.循环风管 Circulating air duct
8.传动齿轮 Transmission to gear
9. 减速机构 Reduction mechanism
10. 循环风机 Circulating fan

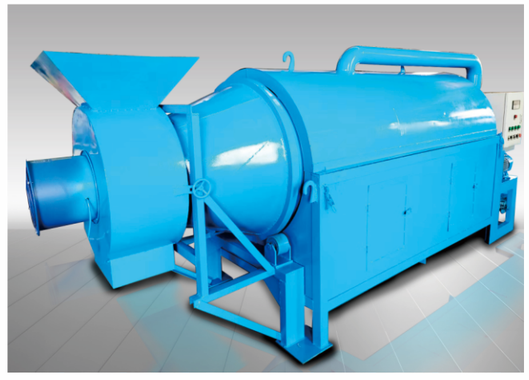
高温空气
低温空气

2 Real photos











PART 06

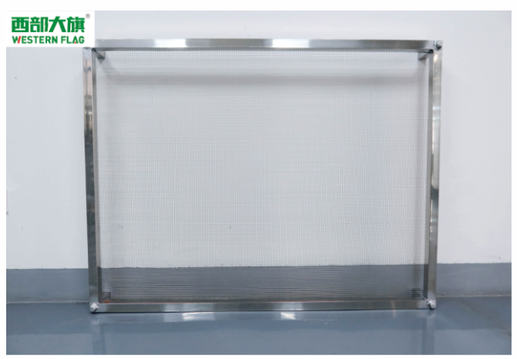
CARTS AND TRAYS

1 Real photos





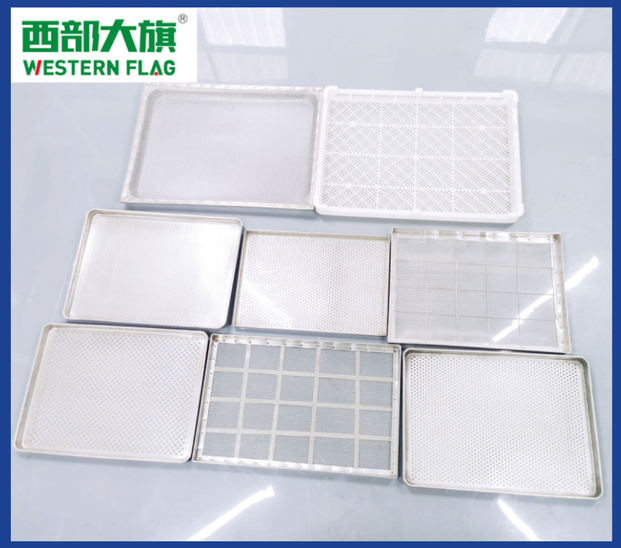












2 Specification sheet

No.	Name	Specification	Material	Optional	Application
Carts					
1	Overlay cart	900*1200*105mm	304 Stainless steel 201 Stainless steel zincification	Tray mesh 5*5mm Tray rhombus mesh 8*16mm	All kinds of drying rooms
2	Hanging cart	900*1200*1800mm	304 Stainless steel 201 Stainless steel zincification	6 layers	Meat drying rooms
3	Tray cart(big)	860*1210*1780mm	304 Stainless steel 201 Stainless steel zincification	15 layers	Stuffs on trays
4	Tray cart(small)	700*920*1780mm	304 Stainless steel 201 Stainless steel zincification	15 layers	Stuffs on trays
trays					
5	Big tray	600*800*50mm	PP/201/304	No hole/mesh tray /hole tray	For big cart
6	One-time molded pressed aluminum tray	460*640*40mm 1mm	Aluminum alloy	no hole/tray with hole DM3mm、5mm、8mm	/
7	One-time molded pressed stainless steel Tray	460*640*40mm 0.6mm	304 Stainless steel	tray with hole DM3mm、5mm、8mm	For small cart
8	Tic-tac-toe stainless steel mesh tray	460*640*40mm small box 0.5mm	304 Stainless steel	304 Stainless steel	/

PART 7

CASES

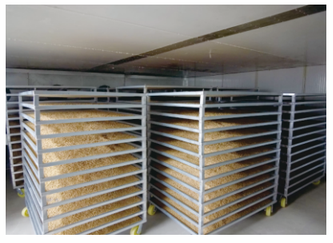
Applications

Fruits and vegetables











Meats









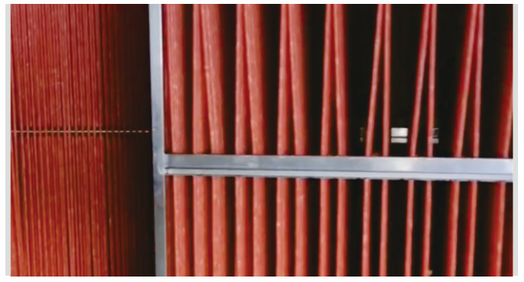













Herbs














Successful cases

- China National Pharmaceutical Group Corporation,
- Eastern Hope Group,
- New Hope Group,
- WENS Group
- Lezhi State Investment Group
- Sichuan Longmang Group
- Huiji food group
- Laochuandong food group
- Longbang Group
- Changlin group
- Yurun Group
- Qianhe Group
- Luding County Government
- Sichuan Food Research Institute
- Guiyang Forest Science and Technology Institute
- Taiyuan Tartary Buckwheat Research Institute
- School of Food Science and Technology of Sichuan University

