

**DRYTECH
SAVE MORE
ENERGY**

DRYTECH(GUANGZHOU) TECHNOLOGY CO., LTD.

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Remarks: Due to the continuous improvement of products, such as the technical parameters in this catalogue are modified without prior notice.

DRYTECH DRYING MACHINE
DRYTECH(GUANGZHOU) TECHNOLOGY CO.,LTD.

COMPANY PROFILE

DRYTECH(GUANGZHOU) TECHNOLOGY CO.,LTD IS A PROFESSIONAL MANUFACTURER THAT INDEPENDENT DEVELOP AND PRODUCE "DRYTECH" SERIES HEAT PUMP DRYERS, DEHUMIDIFIER ETC. THE FACTORY COVER MORE THAN 8000 SQUARE METERS, THERE ARE 50 EMPLOYEES, MORE THAN 10 TECHNICAL RESEARCH AND DEVELOPMENT PERSONNEL. HAVE FIRST-CLASS PRODUCTION WORKSHOP AND PRODUCTION EQUIPMENT, ADVANCED SIMULATION TEST FACILITIES CLIMATE LABORATORY, IS ONE OF THE LARGEST PRODUCTION BASE OF HEAT PUMP IN CHINA.

DRYTECH BRAND SERIES HEAT PUMP DRYER IS BASED ON MANY YEARS' EXPERIENCE AND INTRODUCED ADVANCED MANUFACTURING TECHNOLOGY IN HEATING/COOLING SYSTEM EQUIPMENT FROM EUROPE, UNITED STATES AND OTHER DEVELOPED COUNTRIES, WITHOUT ANY POLLUTION, AND VERY LOW ENERGY CONSUMPTION, ENVIRONMENTAL PROTECTION, IT IS ONE KINDS OF SAVING ENERGY PRODUCTS.

THE HEAT PUMP DRYER IS THE CARNOT THERMAL REVERSED CYCLE, WHICH TRANSFERS THE BIGGER AMOUNT OF HEAT TO THE HIGHER TEMPERATURE STORAGE ROOM(DRYING CHAMBER) FROM THE LOWER TEMPERATURE THERMAL SOURCE(AMBIENT TEMPERATURE) BY SUPPLYING A CERTAIN AMOUNT OF MECHANICAL WORK. IN SOUTH EAST ASIA,SOUTH ASIA AND AFRICA WEATHER CONDITION, THE TYPICAL ENERGY EFFICIENCY OF THE HEAT PUMP DRYER FOR BIOMATERIAL DRYING APPLICATION IS ABOUT 400%, WHICH MEAN FOUR UNITS OF THE HEAT WILL BE OBTAINED FOR DRYING PURPOSE BY JUST CONSUMING ONE UNIT OF ENERGY,IN OTHER WORDS,COP(COEFFICIENT OF PERFORMANCE) REACH TO 4.0. THE ENERGY EFFICIENT AND CLIMATE FRIENDLY HPD(HEAT PUMP DRYER) USED AS THE SAMPLE FOR MARKETING OF THE TECHNOLOGY IN THE AGRICULTURAL AND ENERGY SECTOR. IT CAN BE USE IN DRYING FISH,SEAWEED AND SEATANGLE(MARINE FOOD PRODUCTS),MEAT(PORK,BEEF), DRYING FRUITS(PLUMS,GRAPES,MANGO,APPLE),VEGETABLE, FOOD MANUFACTURES AND WOOD PROCESSING COMPANIES.

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HEAT PUMP DRYERS

the newest models
a new birth after ten year 's preparation

WE FOCUS ON THE BEST MORE THAN 10 YEARS

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What Is Heat Pump Dryer

A device that transfers heat from a colder area (ambient temperature) to a hotter area (drying chamber) by using mechanical energy, as in a refrigerator.

Various Drying Energy Economy Comparison Table							
Heating type	Electric heater	Coal Boiler	Oil-fired Boiler	Gas Boiler	Biomass Stove	Common Heat Pump dryer	Drytech Latest Heat Pump Dryer
Remove 1kg of water required heat energy	According to information provided by the relevant authority of the document, the average 1kg of water to remove heat energy required for 1.35 kw/kg, namely 4860 kj/kg.						
Fuel type	Electric	Coal	Diesel	Gas	Biomass fuels	Electric	Electric
Heat value	3600 kj/kg	23027 kj/kg	33494 kj/kg	36006 kj/kg	17459 kj/kg	3600 kj/kg	3600 kj/kg
Thermal efficiency	95%	30%	85%	85%	90%	350%	400%
Effective thermal value	3420 kj/kg	6906 kj/kg	28469 kj/kg	30605 kj/kg	15713 kj/kg	12600 kj/kg	14400 kj/kg
Fuel price	0.15 /kwh	0.15 /kg	1.25 /L	0.85 /m ³	0.25 /kg	0.15 /kwh	0.15 /kwh
Fuel consumption	1.42kwh	0.7kg	0.17L	0.159m ³	0.375kg	0.386kwh	0.337kwh
Fuel consumption (\$)	0.142	0.007	0.204	0.127	0.075	0.039	0.034
Labor management, warehousing costs	Higher	High	High	High	Low	Low	Low
Safety performance	Unsafe	Unsafe	Unsafe	Unsafe	Safe	Safe	Safe
Environmental pollution	None	Very serious	More serious	More serious	Light pollution	None	None
Life of equipment	5-8 years	6-9 years	6-9 years	6-9 years	8-12 years	10-15 years	10-15 years

Heat Pump Dryer working principle

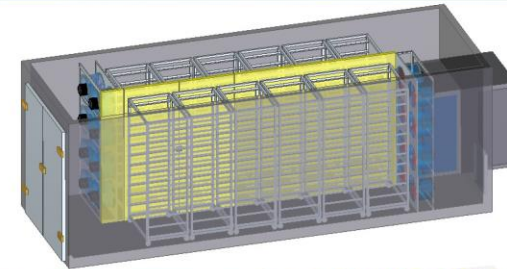
Conventionally, materials are dried either in the field (sun drying) or using high temperature dryers (electric, gas fired, etc.). Successful outdoor drying depends upon good weather and indeterminate weather can render a product worthless. High temperature drying can damage the nutrient content and impart an unpleasant smell to the dried product. Specialty crops such as ginseng, herbs, echinacea, etc., need to be dried at low temperatures (30 - 45Celsius degree) for product quality optimization. This is an important consideration as they have a relatively high commercial value. Heating ambient air to use for drying, although a simple cost-effective procedure, is of limited application, particularly at higher ambient air relative humidities because of the low allowable maximum temperature conditions. Under high ambient moist air conditions, it may not even be possible to dry the material by conventional means. High temperature drying deteriorates the material structure and can render it unsuitable for further use. Low temperature drying of specialty crops reduces the risk of loss in nutrient content and damage to physical properties. Drying system incorporating a dehumidification cycle have been developed that both conserve energy and handle the material gently. The dryer operates using a heat pump where both sensible and latent heats are recovered from the exhaust air. The heat is then recycled back through the dryer by heating the air entering the dryer. The Drytech heat pump drying system is a combination of two sub-systems: a heat pump and a dryer, also the equipment have 2times waste heat recovery. Drytech heat pump dryer operates according to a basic air conditioning cycle involving four main components: the evaporator, the compressor, the condenser and the expansion valve. The working fluid (refrigerant) at low pressure is vaporized in the evaporator by heat drawn from the dryer exhaust air. The compressor raises the enthalpy of the working fluid of the heat pump and discharges it as superheated vapor at high-pressure. Heat is removed from the working fluid and returned to the process air at the condenser. The working fluid is then throttled to the low-pressure line (using an expansion valve) and enters the evaporator to complete the cycle. In the dryer system, hot and dry air at the exit of condenser is allowed to pass through the drying chamber where it gains latent heat from the material. The humid air at dryer exit then passes through the evaporator where condensation of moisture occurs as the air goes below dew point temperature. Then drain the condenser water.

Heat Pump Dryer Application

Drying processes

Drying is an important industrial process. Various temperature levels and drying principles are applied in industrial dryers. The most common dryer type is one in which air is heated with steam, gas or hot water and then circulated over the wet product. As the air picks up moisture from the wet product, its humidity increases and the energy contained in this stream may make it a useful heat source. Standard procedure is to exhaust this humid air or dehumidify it. With a heat pump, heat can be extracted from the humid air. The air is cooled down and dehumidified. The extracted heat can be increased in temperature and can be used to heat the dryer.

Thus, the use of a heat pump serves two purposes - heat the dryer and dehumidify and recirculate air. Heat pump assisted drying can give high efficiencies because of this. This innovative heat pump application has been realised in practice; the heat pump for drying of fruits/vegetable, meat, seafood, herbs etc.





Drytech Heat Pump Dryer Features

1. Energy saving & Environmental protection

Adopt close dehumidify + circulating drying type, saving operating cost; Without waste gas and waste heat pollution, low noise

2. Running Stable, operating easily

Touch Screen, running stable, operating easily; Suitable for drying different materials.

3. Second waste heat recovery technology (patent)

Adopt air to air heat exchanger dehumidify and recovery waste heat at the same time, saving energy more than 40%.

4. Exact control temperature and humidity

According to different material setting different drying temperature and time, the heat pump dryer can control the drying chamber temperature between 20-80°C

5. Recovery volatilized component

Some kinds of material contain volatilized component, in drying processing, hot and wet air will become condenser water then drain, collect the condenser water so that collect volatilized component.

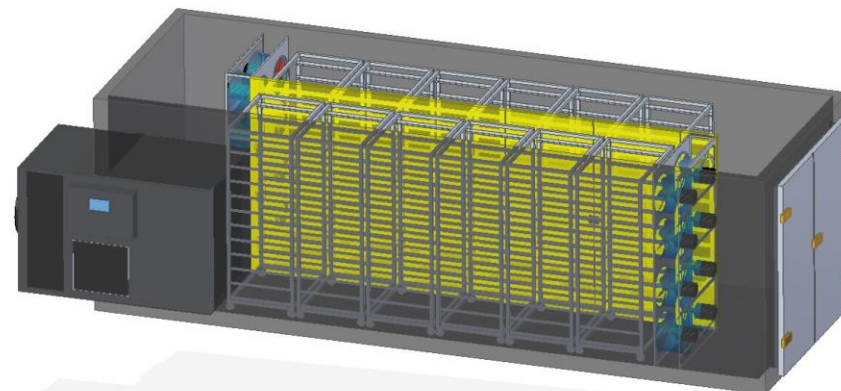
Touch screen



- H-Dry(Heating)
- HDry+moisture
- Cooling

HORIZONTAL BLOWING TYPE

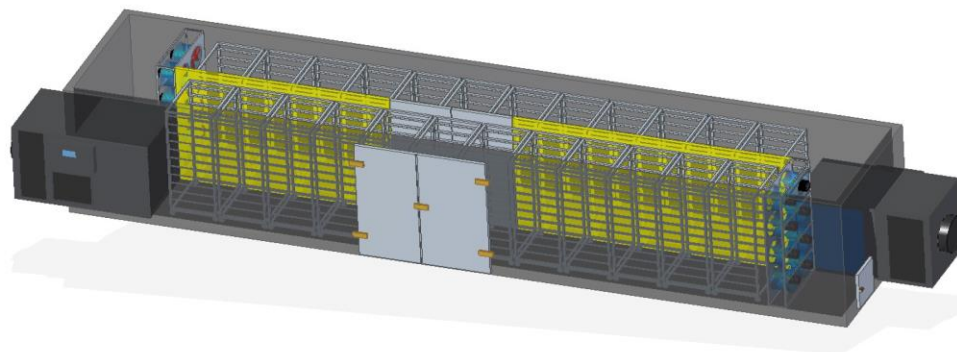
Model	Power supply	Power input(KW)	Rated current	Refrigerant (R134/KG)	Heating capacity(KW)	Cooling capacity(KW)	Dehumidify capacity(L/H)	Hot air flow(m³/H)	Dryer size(mm)	Drying chamber size(mm)
DT300H	220V,1PH,50/60HZ	5.5	25.0A	2.5	10.5	7.8	12.0	23600-12800	1650*856*1280	3800*2190*2200
	380V,3PH,50/60HZ	5.5	11.0 A	2.5	10.5	7.8	12.0	23600-12800	1650*856*1280	3800*2190*2200
DT500H	380V/3PH/50HZ	6.9	14.0 A	3.8	16.0	12.5	20.0	23600-12800	1650*856*1280	3800*2190*2200
DT600H		9.5	19.0 A	4.0	21.0	18.0	25.0	47200-25600	1650*1056*1280	6150*2190*2200
DT1200H		19.4	39.0 A	8.0	42.0	32.0	50.0	70800-38400	2089*1260*1580	6350*3230*2200
DT1500H		21.8	44.0A	9.0	50.0	40.0	60.0	76500-54000	2089*1260*1580	6350*4670*2200
DT300HD		11.0	22.0 A	5.0	21.0	15.6	24.0	47200-25600	1650*856*1280	7050*2190*2200
DT500HD		13.8	28.0 A	7.6	32.0	25.0	40.0	47200-25600	1650*856*1280	7050*2190*2200
DT600HD		19.8	37.0 A	8.0	42.0	36.0	50.0	47200-25600	1650*1056*1280	10100*2190*2200
DT1200HD		32.8	66.0 A	16.0	84.0	64.0	100.0	70800-38400	2089*1260*1580	10750*3230*2200
		40.0	80.0 A	16.0	84.0	64.0	100.0	120000-72000	2089*1260*1580	10750*3230*2200
DT1500HD		43.6	88.0A	18.0	100.0	80.0	120.0	153000-120000	2089*1260*1580	12900*4670*2200





HORIZONTAL BLOWING TYPE

Model	Power supply	Power input(KW)	Rated current	Refrigerant (R134/KG)	Heating capacity(KW)	Cooling capacity(KW)	Dehumidify capacity(L/H)	Hot air flow(m³/H)	Dryer size(mm)	Drying chamber size(mm)
DT300H	220V,1PH,50/60HZ	5.5	25.0A	2.5	10.5	7.8	12.0	23600-12800	1650*856*1280	3800*2190*2200
	380V,3PH,50/60HZ	5.5	11.0 A	2.5	10.5	7.8	12.0	23600-12800	1650*856*1280	3800*2190*2200
DT500H	380V/3PH/50HZ 460-480V/3PH/60HZ	6.9	14.0 A	3.8	16.0	12.5	20.0	23600-12800	1650*856*1280	3800*2190*2200
DT600H		9.5	19.0 A	4.0	21.0	18.0	25.0	47200-25600	1650*1056*1280	6150*2190*2200
DT1200H		19.4	39.0 A	8.0	42.0	32.0	50.0	70800-38400	2089*1260*1580	6350*3230*2200
DT1500H		21.8	44.0A	9.0	50.0	40.0	60.0	76500-54000	2089*1260*1580	6350*4670*2200
DT300HD		11.0	22.0 A	5.0	21.0	15.6	24.0	47200-25600	1650*856*1280	7050*2190*2200
DT500HD		13.8	28.0 A	7.6	32.0	25.0	40.0	47200-25600	1650*856*1280	7050*2190*2200
DT600HD		19.8	37.0 A	8.0	42.0	36.0	50.0	47200-25600	1650*1056*1280	10100*2190*2200
DT1200HD		32.8	66.0 A	16.0	84.0	64.0	100.0	70800-38400	2089*1260*1580	10750*3230*2200
		40.0	80.0 A	16.0	84.0	64.0	100.0	120000-72000	2089*1260*1580	10750*3230*2200
DT1500HD		43.6	88.0A	18.0	100.0	80.0	120.0	153000-120000	2089*1260*1580	12900*4670*2200

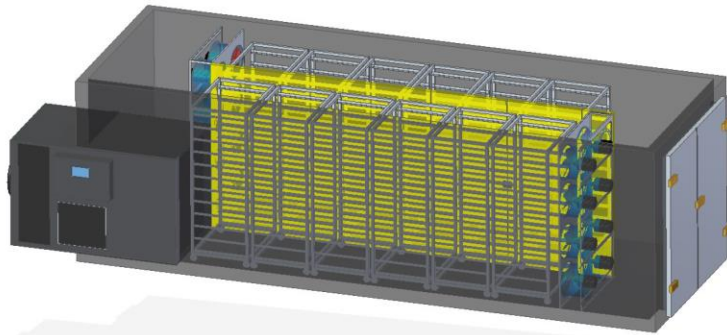


TOP BLOWING TYPE

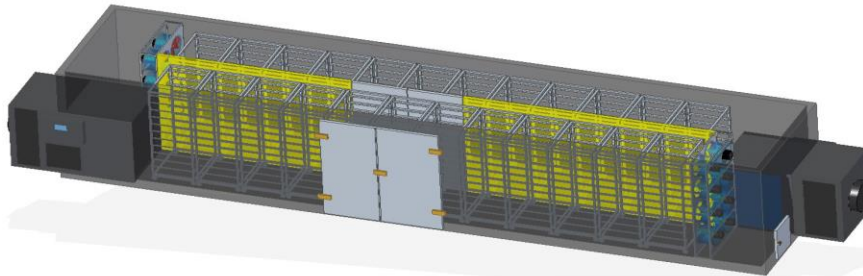
TOP BLOWING TYPE				
MODEL	UNIT	DT600T	DT1000T	DT1200T
POWER INPUT	KW	6.8	13.5	15.0
POWER SUPPLY	V/PH/HZ	380V/3PH,50/60HZ		
RATED CURRENT	A	17.0	27.0	30.0
HEATING CAPACITY	KW	21.0	35.0	42.0
COOLING CAPACITY	KW	18.0	25.0	32.0
DEHUMIDIFY	L/H	25.0	42.0	50.0
MAX.TEMPERATURE		≤75	≤75	≤75
WORKING CONDITION		0-43	0-43	0-43
ELECTRIC SHOCK PROTECTION GRADE		I	I	I
MAX.EXHAUSE PRESSURE	MPa	3.0	3.0	3.0
NOISE	dB(A)	≤75	≤75	≤75
POWER CONSUMPTION/H	KWH	8.5	13.5	15.0
ELECTRIC HEATER	KW	6	9	12
BLOWING TYPE	/	TOP BLOWING		
DIMENSION OF DRYER	MM	1790X1060X1660		2180X1360X1990
WEIGHT	KG	350	480	500



Horizontal Blowing Type

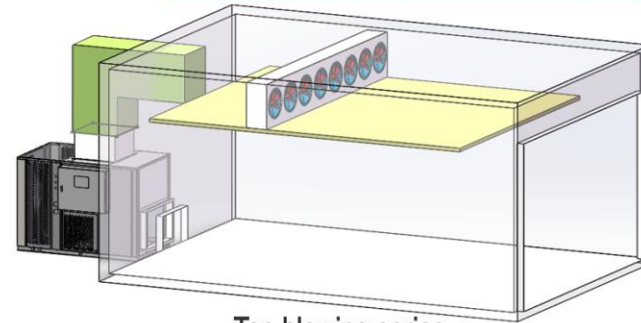


DT***H series

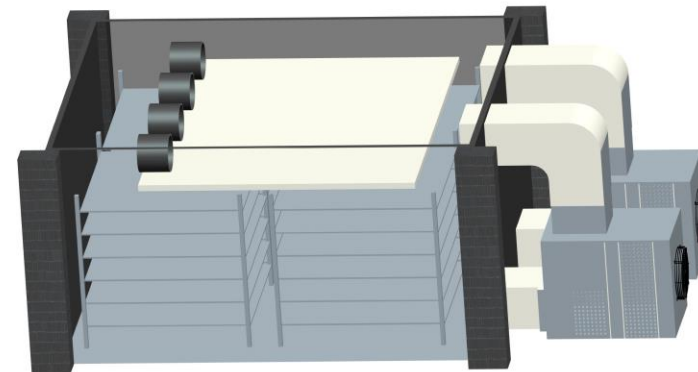


DT***HD series

Top Blowing Type

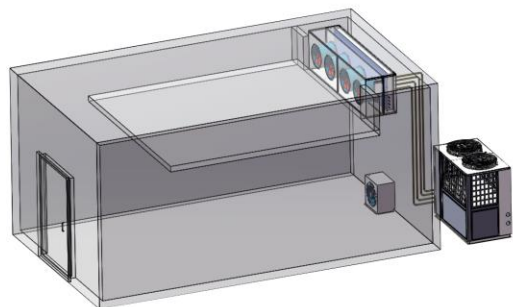
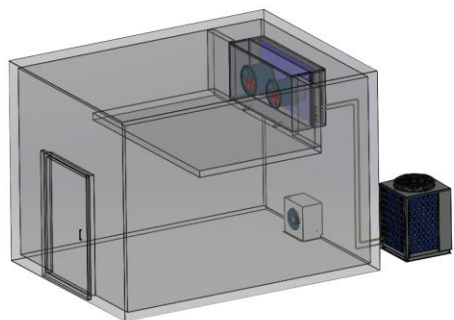


Top blowing series



Top blowing series

Split type drying machine



Drying chamber size

Model	Dryer quantities	Drying chamber size(mm)	Fan quantities
DT300H	1	3800X2190X2200	8(3#)
DT300HD	2	7050X2190X2200	16(3#)
DT500H	1	3800X2190X2200	8(3#)
DT500HD	2	7050X2190X2200	16(3#)
DT600H	1	6150X2190X2200	16(3#)
DT600HD	2	10100X2190X2200	16(4#)
DT1200H	1	6350X3230X2200	24(3#)
DT1200HD	2	11860X3230X2200	24(4#)
DT1500H	1	6350*4670*2200	24(4#)
DT1500HD	2	12900*4670*2200	18(5#)





Model		6HP
Power input	KW	5.2
Power supply	/	380V/460-480V, 3PH
Rated current	A	10.8
Heating capacity	KW	21
Cooling capacity	KW	18
Dehumidify capacity	L/H	30
Max.Power input	KW	6.6KW
Max.current	A	13
Max. temp	°C	75
Working condition	°C	0-45
protection against electric shock	/	I
Max.system pressure	MPa	3.0
Noise	dB(A)	75
Air flow	M ³ /H	20000-30000(inside)
Heat pump type	/	Top blowing
Dimension	mm	750*690*1200mm
Weight	Kg	285

Model		12HP
Power input	KW	11.2
Power supply	/	380V/460-480V, 3PH
Rated current	A	22.5
Heating capacity	KW	42
Cooling capacity	KW	32
Dehumidify capacity	L/H	50
Max.Power input	KW	13
Max.current	A	27
Max. temp	°C	75
Working condition	°C	0-45
protection against electric shock	/	I
Max.system pressure	MPa	3.0
Noise	dB(A)	75
Air flow	M ³ /H	30000-36000(inside)
Heat pump type	/	Top blowing
Dimension	mm	1000*1356*12590mm
Weight	Kg	500

PTC New Type Dryers

Characteristics

The PTC heating component is installed with safety protection device. When it is used abnormally, current will automatically cut off to maintain safety.

The heating components are integrated together, consist of average heating effect. When used for heaters, it can independently control single PTC (500W,800W) double PTC (1000W,1500W) or triple PTC(1500W,2000W) heating components, effectively saves electricity cost and increases product life.

The pole and terminal are connected by point welding, preventing electrode loosen causing resistant and temperature to increase when heated, cold contraction or heat inflation.

The outer edge of the PTC heating component is designed with single and double insulation. When in contact with metal will not cause electric shock or short circuit.

The heating component is airtight/ tightly sealed, electrode is unexposed. Most suitable for application in bathroom or high humidity locations-use for drying machine(Drying fruits or vegetable, seafood, meat etc.)It is installed with double insulation heating device, can be used underwater, without causing electricity leakage or short circuit. When heated dry, it will not crack or burn down the container. No smell, no radiation and will not oxidize or cause oxygen shortage when used for a long time.

Fast thermal respond time, low inrush current. Will not cause fire sparks or flame by instant/sudden power supply or when in contact with flammable objects such as matches, cotton, paper.

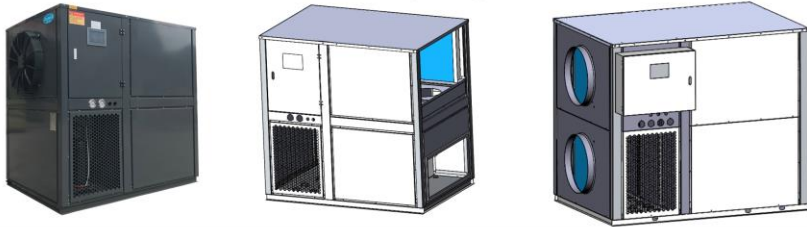
Temperature control devices are not required for various temperature selections. Static heating, lowers product cost and saves electricity effectively.The heating component not only can be used in heater fans, its individual components can also be used for general house ware electricity appliances

Model		H1	H2
Power input	KW	6.5	6.75/9.75
Power supply	/	220V/380V	
Rated current	A	13	13.5/19.5
Heating capacity	KW	6.5	6.75/9.75
Max. temp	°C	80	
Working condition	°C	0-45	
protection against electric shock	/	I	
Noise	dB(A)	75	
Air flow	M ³ /H	3000-5000	5000-7500
Blowing type	/	Horizontal blowing	
Dimension	mm	1500*800*2150	2400*800*2150
Weight	Kg	285	325





Close loop drying machine



CLOSE LOOP DRYING MACHINE

Model	Power supply	Power input(KW)	Rated current	Refrigerant (R134/KG)	Heating capacity(KW)	Cooling capacity(KW)	Dehumidify capacity(L/H)	Dryer size(mm)
DT300H	220V,1PH,50/60HZ	5.5	25.0A	2.5	10.5	7.8	12.0	1650*856*1280
	380V,3PH,50/60HZ	5.5	11.0 A	2.5	10.5	7.8	12.0	1650*856*1280
DT600H	380V/3PH/50HZ 460-480V/3PH/60HZ	9.5	19.0 A	4.0	21.0	18.0	25.0	1806*1178*1662
DT1200H		19.4	39.0 A	8.0	42.0	32.0	50.0	2142*1598*1773
DT1500H		21.8	44.0A	9.0	50.0	40.0	60.0	2142*1598*1773
DT300HD		11.0	22.0 A	5.0	21.0	15.6	24.0	1650*856*1280
DT600HD		19.8	37.0 A	8.0	42.0	36.0	50.0	1806*1178*1662
DT1200HD		40.0	80.0 A	16.0	84.0	64.0	100.0	2142*1598*1773
DT1500HD		43.6	88.0A	18.0	100.0	80.0	120.0	2142*1598*1773



Small Heat Pump Dryers



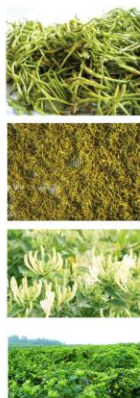
Model	DT015	DT020	DT030
Heating capacity(KW)	4.5	6.0	9.0
Power input(KW)	1.3	1.8	2.8
Power supply	220V/1PH	220V/1PH	220V/1PH
Rated current(A)	6.0	11.0	18.0
Dehumidify capacity(L/H)	4.5	6.0	9.0
Control panel	Touch screen		
Compressor type	Rotate	Rotate	Scroll
Refrigerant type	R134A	R134A	R134A
Temperature	65C		
Max.Temperature	80C		
Hot air blowing	Horizontal/Vertical		
Working condition	-5-45C		
Waterproof level	IPX4		
Anti-shock level	I		
Noise(dB)	58	60	60
Dimension(mm)	1180*1100*1960	1180*1100*1960	1985*1020*1948

Drying Honeysuckle

Honeysuckle is a perennial and semi-evergreen woody vine of Caprifoliaceae. Its Chinese name, Jin Yin Hua, is from the Compendium of Materia Medica. It has been known as a good medicine which clears heat and removes toxic since ancient times. Its sweet and cold nature helps clear heat without hurting human stomach. It smells fragrant and is good for removing diseases. The honeysuckle dissipates wind heat and purifies the blood. Accordingly it is very effective in treating fever, exanthema, macular eruption, heat carbuncle, sore throat. The traditional method is to dry honeysuckle in a mud curing barn.

This method is hard to control and inefficient, producing dried honeysuckle with poor quality. It neither keeps up with development of scale, modernization and seasonal changes of honeysuckle industry, nor goes well with the high-quality and rapid modern life.

In the wake of the development of mechanization, automation, and of scientific research information technology, automatic and smart high-temperature heat-pump drying equipment has advanced for recent years. For example, air source heat-pump dryers, with their mechanical and fully automatic advantages, satisfy demands of modern social development. They change the outmoded drying procedures like manually wood and coal adding, turning over, and temperature and humidity measuring. Based on the prior art on the market, our product is the honeysuckle dryer with the highest price performance ratio on the current market, with re-designed and upgraded technology combining theory with practice.



Temperature curve of drying honeysuckle

Phase 1	Phase 2	Phase 3	Phase 4
First, preheat the drying cabinet to 35–40°C, put fresh honeysuckle in the cabinet and then hold the temperature at 40°C for 4–6 hours while removal of moisture is enhanced.	Raise the temperature in the cabinet from 41 to 48°C gradually within 5–7 hours. Make it sure that the temperature is no higher than 50°C while removal of moisture is enhanced at the same speed. After 9–13 hours of low and medium-intensive drying and strong removal of moisture, honeysuckle becomes dried half.	Remain 50–54°C in the cabinet for 2–4 hours while slowing down the removal of moisture to help raise the temperature. After Phase III, 80% of water in honeysuckle is removed.	The temperature shall be 55–65°C in the drying cabinet, and no higher than 70°C for 2–4 hours, while removal of moisture shall be slowed down properly. With the procedure, halt the dryer according to the color of honeysuckle.

Drying Cordyceps militaris

Cordyceps flower, or Bei Dong Chong (the "Northern winter worms"), is a valuable medicinal fungus in modern times. It mainly grows in North China. Abounding in protein and amino acid, it contains more than 30 microelements necessary for human body. It is known as a first-class tonic. The traditional method uses electricity for heat, boilers and microwave. In actual use, this method costs highly, increasing production costs and unhelpful to enlarging sales. In addition, it takes about 24 hours to dry cordyceps flower up, producing unsatisfying color, which annoys most enterprises. Accordingly, this method is not used widely. Some enterprises even directly dry cordyceps flowers using sunlight.

How to dry cordyceps flower with Drytech dryer

Moisture content in fresh cordyceps flower is up to 78%. Set the temperature at 35°C to dry the cordyceps flower for 3–4 hours to remove some water.

Raise the temperature to 45°C to dry the cordyceps flower with 65% moisture content for 5 hours. After that, the moisture content is reduced down to 30%. The cordyceps flower looks dry.

Raise the temperature to 55°C and dry the cordyceps flower for 3 hours until they can be crumbed to pieces, and then halt the dryer to pack up the dried product for storage.



Momordica grosvenori (Luo Han Guo)

Momordica grosvenori has large size and high moisture content. It is a great challenge to dry momordica grosvenori rapidly without any loss of efficacy. Drytech heat pump dryer can resolve temperature uniformity with its distinct energy-saving drying cabinet and the smart moisture-removing system. Divide momordica grosvenori into super big group and big group, put them separately in the material car and then send into the drying cabinet; start the dryer without stirring them. After several days of smart drying and removal of moisture, all dried momordica grosvenori become golden and lustrous without broken or cracked shells. All dried nut fruits can be stored for a longer time with high-quality appearance.



How to dry momordica grosvenori with Drytech dryer

Divide momordica grosvenori which have been saccharified and sweated into three grades, big, medium and small, put them in drying cabinets separately. Start Drytech air source heat pump dryer to raise the temperature. In the drying process, the temperature goes through three stages, low, high, and low.

Phase 1: Remain the temperature at 20°C -24°C in the drying oven to dry momordica grosvenori with high moisture content for 2-3 days while start automatic function of moisture removal to evaporate water gradually.

Phase 2: Raise the temperature gradually to evaporate water. The humanity system will exhaust moisture automatically to remove water vapor. The phase lasts 2-3 days to remove most water.

Phase 3: Reduce the temperature to 55°C -60°C and continue to dry momordica grosvenori for two days to lose their weight to 25-30% of fresh ones. Halt Drytech air source heat pump dryer to make the dried fruits to cool down naturally. Lastly, take cool momordica grosvenori out of the cabinet.



Purple Chinese yams

Purple Chinese yams, a latest species bred by Ziyu Huaishan Vegetables Scientific Institute, have the name for their purple red pulp. Compared with common white Chinese yams, the purple Chinese yams are rich in nutrients such as starch, sugar and zinc that they are good for eyes and can prevent heart attack and cancers. They tastes good and abound in more than 20 nutrients including starch, sugar, protein, saponin, amylase, choline, amino acid, vitamins, calcium, iron and zinc. They become the best among new-generation healthy foods.



How to drying purple Chinese Yams with Drytech dryer

Temperature-raising phase: Slice yams on drying racks and push into the drying cabinet. Start the dryer to send warm wind into the cabinet to raise the temperature to 50°C for 0.5- 1.5 hours. Start moisture removal function when humidity rises. Drytech heat pump drying and dehumidifying machine can keep the constant temperature over the moisture removal.

Drying and moisture-removing phase: There are two sub-phases, high humidity and low temperature, and medium humidity and medium temperature. In the first sub-phase, remove the moisture when the temperature ranges from 40°C to 50°C to avoid color of yams changing due to high temperature and high humidity. Watch water vapor on the surface of yams so as to remove it at any time. This phase shall last 3-3.5 hours. In the second sub-phase, the temperature ranges from 50°C to 60°C . If necessary, use fresh air to remove moisture based on density of moisture.

Speed-reducing and shaping phase (also known as a low-humidity and high-temperature phase): the temperature ranges from 60°C to 70°C . In the first half phase, the temperature shall not be higher than 70°C . In the second half phase, the temperature shall be not lower than 75°C . The whole phase lasts 5-7 hours.

Drying Maca

Many maca products are available in the current market. Some are basically unprocessed maca. They accordingly have a shorter shelf life and are easy to go bad. Some are maca products which are made of the maca after dried in the sun, boiled, or dried by fire. Some are capsule or troche made from maca powder. Some are alcohol products made from maca. The maca products are made at 60-70°C or above. Some effective substances, especially thermo-sensitive substances such as protein and vitamin, are volatilized or oxidized, so its efficacy is weakened. It is necessary to improve the existing processing technology to retain its effective substances and active ingredients to exert their multi healthy functions. Moisture content of fresh maca is about 70%. Only when the moisture content is 10-20% and the drying temperature is below 50°C, maca can be stored well. We recommend to use two dryers to dry maca on a two-way convective basis. This method can ensure that the drying temperature is even and the effect is not changed. Compared with the drying method using microwaves, the soft drying method based on the air source technology has a little impact and influence on properties of maca, especially on microelements such as macaenes and macamides, due to moderate speed of dehydration.

Advantages of Drytech maca dryer

The automated Programmable Logic Controller (PLC) is used to adjust the drying process so as to retain properties of maca and to guarantee its drying quality.

The temperature and the humidity are adjustable, significantly reducing the drying time and greatly enhancing the productive performance.

All maca can be heated evenly and dried up at the same time due to unique design of the cabinet where there are no dead angles.

Compared with the traditional drying method, Drytech air source dryer can greatly improve the quality of the dried maca and extending its shelf-life. The dried maca is plump, good-efficacy, fully parched, safe and healthy.



Drying Fig

Fig is famous for its abundant nutrition and as a good medicinal material for dietary therapy. It is very effective in strengthening our stomach, purging our intestines, removing toxic substances and edema and very edible to people with diseases such as dyspepsia, inappetence, hyperlipidemia, high blood pressure, coronary heart diseases, arteriosclerosis, cancers and constipation. Moisture content in fig is up to 78%, existing in three forms free water, colloid water and combined water. Free water and colloid water account for a majority of water removed in the drying process.

How to dry fig with Drytech dryer

Hold the temperature at 65-75°C for 3-5 hours. Raise the temperature to 50-55°C which shall be held for 16 hours and then to 55-60°C for one hour. The entire process takes 19-20 hours. Note: Make sure that the hot air supply is available all the time and is recorded on an hourly basis.



Drying Nogseng (San Qi)

San Qi has its origin in Wenshan in Yunnan Province, which is home to national rare medicinal herbs. San Qi's planting area and yield respectively occupy more than 90% of the total in the country with the top quality in China. However, no ground-breaking progress in curing San Qi has achieved. The traditional drying processes still prevail, such as drying in the sun and curing over a fire. As the planting area is increasing, the application range is extending, social demand continues to increase and the traditional Chinese medicine regulation has been strengthened, the traditional drying processes can't meet requirements of people on high-quality San Qi any more. It is urgent to automate and mechanize the drying process so as to save energy. Compared with the traditional drying process, Drytech air source drying cabinet can significantly improve the quality of dried San Qi. Dried San Qi is plump, good-efficacy, fully parched, safe and healthy, and thus its shelf-time becomes much longer

Advantages of Drytech San Qi dryer

Energy- efficient. It only takes two days to dry out San Qi. Drying one-jin(a Chinese unit of weight) San Qi only costs RMB 0.2 yuan (1yuan per kWh)

It can run on a smart basis without manual duty. It produces no pollution due to no coal or wood burned. It is not subject to the weather and can be installed on a smaller place.

San Qi can be dried in the cabinet on an even and all-directional base without any stirring and removing the cars. Dried San Qi is high-efficacy, very plump and fully parched.



Dried orange peel

The drying process is a bottleneck challenging the current Orange peel market. Yield of Orange peel has not been maximized yet. In recent years, the government has prohibited to fire coal and boilers, greatly restricting development of Orange peel manufacturers and increasingly magnifying drying-related problems. Drytech(Guangzhou) Technology Co., Ltd. has developed the drying equipment integrating drying, moisture removal of, fresh air supply, cooling, and accurate control over multi-level temperatures and humanity to satisfy customers' demands on Orange peel. Not only the entire drying process is unmanned, energy-efficient, environmental, and time and cost-reducing, but also the dried Orange peel is lustrous and looks nice. It has completely resolved some problems remaining in the traditional drying process for a long time.

How to dry Orange peel with Drytech dryer

Select and accept fresh fruits, peel off skins, dry them soft, turn over and shape them, dry them up at constant temperature, and pack up Orange peel for storage.

Select and accept fresh fruits: select and use Xinhui oranges, which have no scabs, are not damaged by diseases and insects and lustrous and high-quality.

Get skins from fresh fruits: use a sharp knife to cut the oranges into three unseparated equal pieces on a vertical basis, and then separate pulp from skins;

Dry skins soft: put skins on a self-made square rack, put the rack in the cabinet and dry them soft at lower temperature for one hour.

Turn over and shape skins: take the rack out of the cabinet, and turn skins over (Don't break the skins and keep them perfectly for the higher rate of finished products);

Dry skins up at constant temperature: put the square rack where the skins have been turned over back to the cabinet. Set the working temperature at 45°C. After 7 hours of drying at the set temperature, extract Orange peel samples for weigh. Orange peel is 25% of its fresh skin by weight and its moisture content is 15%. In the drying process, make sure the skins are heated evenly and racks shall be moved each two hours on an up-to-down, front-to-back and opposite-angle basis.



Drying Pitaya Flower

Pitaya flower is a perennial succulent herbaceous climbing plant. The main edible parts are flower organs, which have the functions of clearing away heat and moistening the lungs and relieving cough. The dried flower products are the best products in vegetables and have been sold well in domestic and foreign markets. The plant species of Bawang flower is special, color, The flower shape is novel and beautiful, and the flowering period is long. It should be planted in the suburbs or tourist attractions of the city. It can be combined with tourism development to become "sightseeing agriculture", and its medicinal value and ornamental value are both. Pitaya flower can be used for both food and tea. It is a veritable natural health food. However, since the moisture content of flowers is more than 86%, it is not conducive to storage, transportation and processing. Except for a small number of fresh foods (for fresh food or soup in Guangdong), most of the raw materials still need to be dried. Commercially available dry tyrant flowers are either dark in color, poor in quality, and prone to mildew; either excessive sulphur and lack of food safety. The air energy heat pump dryer perfectly solves this problem. It is a new drying equipment with high energy saving, good drying quality and high efficiency - Bawanghua dryer.

Pitaya flower drying process:

The flowering period of Bawang flower is long, generally flowering from May to November every year, the peak period is from June to September, and there are 7-8 batches of flowers in a year. Picking the tyrannosaurus flower is also very particular about it. It is usually carried out in the morning and evening after the flower blooms, especially in the sunny morning. When picking, the base of the flower handle should be cut off, then the flowers should be lightly placed in the basket and processed and dried within 8 to 10 hours to prevent deterioration.

Initial drying stage:

The over-the-cut and well-regulated Pitaya flowers are evenly placed on the material frame. The initial drying room temperature should be raised to the range of 55 °C, and the flowers can be pushed into the drying room; the dry ball setting is set to At 55 °C, the wet bulb was set to a room temperature of 38 °C for 4-6 hours, and after 4-6 hours it was softened.

The second stage drying temperature and humidity settings:

The drying chamber temperature was gradually increased from 55 °C to 60 °C for dry balls, and the wet bulb was raised from 38 °C to 42 °C. The lifting time of this temperature difference is gradually completed within 2 hours, and cannot exceed the temperature range of 60 °C. After 9-12 hours of initial, moderate drying and strong drainage, Bawang flower basically reaches 70% dry.

The third stage drying temperature and humidity setting:

The ball temperature is controlled by the temperature rising stage of 55-60 °C for 4-6 hours. At this stage, the wet bulb temperature is set at 46 °C to facilitate the temperature increase. After the third stage, the dragon fruit flower basically reaches 80% dry.

The fourth stage of drying is completed:

The dry sphere of the temperature range is set to 70 °C, the wet bulb is set to 50 °C for the forced drying period, and the temperature must not exceed 80 °C. After 2-4 hours of forced drying, the water content of Bawang flower is about 12%, observed in the observation hole. After drying the color of the king flower, you can stop the temperature and release it. The advantages of the heat pump type Pitaya dryer are intelligent temperature control and automatic moisture removal. The average disposal cost per kilogram of dried flowers is about 5 cents.

The drying time is generally 18-20 hours, and the longest time can reach more than 30 hours. This is related to the thickness of the paving in the drying tray and the moisture content of the Bawang flower. There is also a difference in the variety of Bawang flowers due to different varieties. After the test, if the whole flower of Bawang is not cut, the drying time is more than 48 hours; the drying time of cutting into multiple pieces is shortened to about 24 hours. The dragon fruit flower harvested during the rain period exceeds the non-rainwater period by about 10-20%.



Drying Chrysanthemum

Chrysanthemum is a perennial herbaceous plant of the composite family. Its dried flower head is typically used as a medicine. Moisture content of fresh chrysanthemum is very high, even more than 80%, while its petals are the opposite. Its head is difficult to lose water due to its tough tissue, while its petals are very soft and easy to dry. Its head is often used as a medicine though its tissue is very uneven. Dried chrysanthemum is widely used for tea. The chrysanthemum tea smells fragrant, taste sweet and is good for digestion and refreshment. Customers have higher requirements on color, aroma shape and taste of dried chrysanthemum which shall be the very same as fresh chrysanthemum. For this purpose, fresh chrysanthemums can be dried only after steamed. Its head shall be dried on a strong basis while its petals shall be dried with the opposite way. The current traditional drying process, that is, steaming and then drying in the sun, is completely subject to the weather. The pedals are always dried up too much, even falls off, and the dried chrysanthemums can't meet quality requirements. As an environmental solution, Drytech chrysanthemum dryer has freed customers from restriction of the weather and ensures that the dried chrysanthemum is complete, lustrous and parched properly.

How to dry chrysanthemums with Drytech dryer

Raise the temperature to 65-75°C which will be held for 2-3 hours to remove water, to 35-40°C held for 2-3 hours, 40-45°C held for 8 hours, and finally to 50-55°C held for 8 hours. The first-phase drying process takes 18-20 hours.

Reduce the temperature to 35-40°C held for 3-4 hours. Raise the temperature to 45-50°C held for 15 hours, and to 55-60°C for one hour. The second-phase drying process takes about 19-20 hours. (Note: Make sure that the hot air supply is available all the time and is recorded on an hourly basis.)



Drying Roses

According to the traditional Chinese medical science, rosebuds help to regulate the flow of vital energy and resolve depression, promote blood circulation for remove blood stasis, regulate menstruation for relieving pain, and to soften heart and cerebral vessels. They taste sweet and a little bitter and have a warm nature, so they can nourish our heart, liver and blood vessels and regulate the flow in our body to help sedation, tranquillization and anti-depression. Typically, rosebuds are stored after dried up for wide use. There are many rosebud drying methods such as drying in the sun or in the shade, freeze-drying and drying by using dryers. Among those methods, drying in the sun and airing in the shade not only can achieve a good drying result but also are very convenient and labor-saving. However, both of them can't effectively and completely kill insect eggs which will grow into worms within 2-3 months. The natural drying methods are accordingly not applicable to commercial production of dried rosebuds. Drytech dryer which can protect effective elements in the roses well is the best choice to produce top-graded dried rosebuds.



How to dry rosebuds with Drytech dryer

Pick up rosebuds: The best time to pick is when the calyx slightly expands and tips of pedals become red, that is, before the rosebuds are getting ready to blossom. Pick up rosebuds which expands completely but do not open. The picked rosebuds shall be put in the bamboo cages or baskets and be sold or processed at the collection spots as soon as possible. If the picking location is far away, it is necessary to build a temporary shad where you can unfold rosebuds for airing. Don't pile them up, or they will get hot.

Purchasing methods and standards: The processing factories buy fresh rosebuds from appointed farmers on a concentric basis. Rosebuds shall be those which are picked up within 12 hours, and look bright in color and uniform in size. The quantity of small rosebuds shall be less than 5% of the total. Rosebuds have no pedicel, are not mixed with other things. Their receptacle is perfect. Neither they are injured by worms nor watered. They smell purely fragrant. Those that open half or completely are not qualified.

Select fresh rosebuds: Sort the purchased rosebuds out by variety and then select them carefully. Make sure that neither other substances nor rosebuds which open half or completely or small are included.

Put fresh rosebuds on grates and load them in the car: Put the selected rosebuds on the wood drying grates equipped with iron gauze at their bottom on an even basis. Make sure that all petals are either face upward or downward, put evenly but not be overlapped together. Load the grates in the car lightly. Make sure that rosebuds are not deformed or damaged.

Remove water and dry rosebuds up: Carefully push the car into the drying cabinet, close the cabinet door, and raise the temperature. Exercise strict control over the temperature in the cabinet to dry the fresh rosebuds up and regularly change the direction of air supply to make sure that they are dried evenly with a bright color.

Take dried rosebuds out of the cabinet: Dry the fresh rosebuds for 8 hours, and then check them by hand. If rosebuds are perfectly parched, they look lustrous and smell fragrant with pedals purplish red or even darker and their receptacle and sepals yellow green, and you can easily crumb pedals into pieces and receptacle into threads. Push the car out of the cabinet.

Sort out dried rosebuds into groups and pack them up for storage: Sort out rosebuds into groups; cool them to the normal temperature; pack up them with nontoxic plastic bag; seal the bag; put the bag into the standard paper boxes; and at last store the boxes in the warehouse meeting the sanitary standards. Keep the warehouse dry and draughty and the boxes 20 centimeters away from the ground and the walls.

Drying Shiitake

Shiitake is a world-famous valuable edible fungus. With unique fragrance, it contains a lot of nutriment. Its pulp tastes very soft and smooth. It is accordingly one of frequently-used accessories in many famous dishes at home and abroad. In addition, it is a famous medicinal fungus which has higher pharmaceutical values in benefiting qi, satisfying human hunger and dispelling pathogenic wind for blood stasis. According to the modern medicine researches, it helps to improve our health, soften our blood vessels, lower cholesterol levels and even prevent against cancers if we often eat it. Therefore, shiitake sells very well in the international market and has become the second largest edible fungus in the world. It's proven that producing and processing shiitake not only has an extensive market prospect but also can create significant economic and social benefits.

How to dry shiitake with Drytech dryer

Preparation: Pick up shiitake which are about half ripe and not watered for a day. Sort out the picked shiitake into groups, and then expose them in the blazing sun for 2-3 hours to remove some water; put shiitake in the plate with cap face upward and stem face backward on an even basis. Don't overlap or squeeze them, or Shiitake quality will be decreased due to damage. Make sure that shiitake is dried after 6 hours of picking. If refrigeration available, fresh shiitake can be kept longer.



Temperature control: Raise the temperature in the cabinet to 35°C, and then put shiitake into the cabinet. The temperature shall be lower at first, and then raise it gradually. Generally, raise 1-3°C within one hour, and the highest temperature shall be 70-75°C. Dry shiitake at 35-40°C for 6 hours, at 40-60°C for 8-10 hours and at 60°C below for two hours. The higher moisture content is, the more time it takes to dry fresh Shiitake. If the temperature increases abruptly at the beginning, the cap will not be round, chapped and become black, gills will be overlapped, and the activity of enzyme will be damaged. Shiitake will lose its original flavor accordingly. Dry shiitake until it is fully parched. Neither stop heating at will, nor change the temperature at a sudden, or shiitake will become black and its quality will decline.

Humidity control: Exercise strict control over the temperature, and timely dehumidify in the drying process. In the early drying process, dehumidify on a full-load basis as the temperature is 35-40°C; dehumidify at intervals at 40-60°C; and stop dehumidifying as the temperature is higher than 60°C. Shiitake will become white in case of excessive removal of moisture. Hygrophanous and yellow shiitake means that moisture is not removed in a proper way or the temperature is too low, especially heat supply is stopped in the drying process.

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Drying Bamboo fungus

Bamboo fungus is saprophytic, and grows in the bamboo forests. It absorbs nutrients from dead bamboo roots, culms and leaves. Wild bamboo fungus grows in bamboo forests such as the Mao bamboo (*phyllostachys edulis*), Ping bamboo (*qiongzhueta communis* Hsueh), Bitter bamboo (*Pleioblastus amarus keng*) and bambusa emeinsis. It can grow in black, purple and yellow soil. Bamboo fungus is a saprophytic fungus, and its hypha can penetrate through the antagonistic line of many microorganisms. It also can make use of cellulose and lignin many microorganisms can't. Bamboo and wood sawdust, mixed with a small amount of inorganic salt, can meet its nutritional demand. Many people in Guangxi, Fujian, Sichuan and Hunan do business related to processing bamboo fungus. More and more people have adopted bamboo fungus dryers to cure it since such dryers were introduced.



How to dry bamboo fungus with Drytech dryer

Outdoor bamboo fungus breaks its button and completely spreads its lacy "skirt" before dawn. Pick up bamboo fungus as soon as it opens. If applicable, pick up its fruiting bodies with their skirt spreading half or its mature button; put it indoors; and wait its skirt to completely open. Use a knife to cut the rhizomorph at the bottom of the volva; carefully take the cap and the volva off with its stipe and skirt left, use wet gauze to wipe it clean or clear water to wash it; and then put it in the basket or bamboo sieve where a piece of white paper is placed. Don't tear or break the bamboo fungus. Grade it by group, and dry it at lower temperature. Dry it at 40 °C, and turn it over every half an hour. After that, raise the temperature to 50°C slowly, and turn it over every 5 hours. After 4 hours, reduce the temperature to 40°C, and dry it for another 3 hours. Take it out, cool it for 20-30 minutes once the drying process is over. Grade it by group for packing after it turns soft. Dried bamboo fungus weighs 26-28% of fresh bamboo fungus.



Agaric (*Auricularia auricula-judae*)

Agaric sells very well in the market. Currently, its average price in the market is about RMB 50 yuan per jin (a Chinese unit of weight=500g). It is plenty of nutrients and is very popular with foodies. It can help to cure many diseases such as high blood pressure and urethral calculus. Accordingly, their market demand is quite heavy. China plays an important role of producing agaric in the world. Agaric mainly grows in Jilin, Heilongjiang, Liaoning, Inner Mongolia, Guangxi, Yunnan, Guizhou, Sichuan, Hubei, Shanxi and Zhejiang. Among them, agaric in Heilongjiang are the most famous. For the sake of storage and selling, it is very common to dry up the agaric. Therefore, the agaric dryer is very necessary for production at scale.

How to dry agaric with Drytech dryer

Set the drying temperature to 35°C at the beginning. Agaric will deform if the temperature is too high and moisture is removed insufficiently. Dry agaric at 35-40°C for 4 hours; raise the temperature to 45-50°C (the highest temperature must be lower than 60°C) to dry it up. The entire drying process takes about 10-14 hours. The drying process varies with the actual situations such as the desired dryness, the size of the cabinet, and the ventilation way.



Drying bamboo shoot

Bamboo shoot is very delicious and is considered as the treasure among all dishes. According to the Chinese traditional medicine, bamboo shoot has a cold nature which helps to reduce phlegm for descending qi and to clear heat for purgation. It is very tasty. After quick boiled, fresh bamboo shoot becomes more delicious. Many people like to fry them dry, add some water and boil it with meat. This cooking method makes bamboo shoot tastier. Some people call bamboo shoot "Caizhu dish", indicating that it tastes better if cooked with meat. Many people in Fuzhou in Jiangxi to Guangxi and Fujian do business related to processing bamboo shoot. More and more people have adopted bamboo shoot dryers to cure it since such dryers were introduced.

Brief introduction to Drytech dryer

Drytech bamboo shoot dryer, also known as air source bamboo shoot dryer, is used to dry Mao bamboo shoot and Square bamboo shoot. It can greatly save electricity and energy based on the air source technology. It has been widely used in many cities such as Sanming in Fujian. As many cities such as Zunyi in Guizhou don't allow to use the earth stoves which burn coal, more and more people start to use professional dryers to cure bamboo shoot. Moisture content in bamboo shoot is very high. We accordingly recommend that the temperature be set at 30°C at the beginning and be raised step by step. The entire drying process takes about 60 hours. Drytech bamboo shoot dryer is equipped with the temperature and humidity sensor which can exercise the accurate control over temperature every time so as to guarantee the quality of dried bamboo shoot.



Brief introduction to Drytech dryer

It is the rainy season when peppers are harvested. The autumn rainfall frequency is usually 70-80%, and even higher. In this situation, peppers will soon mildew and rot if not dried in time. After a long time of research, we have developed a pepper dryer with many obvious advantages. Traditional dryers can only dry a small amount of peppers at a time but consumes a lot of energy, resulting in serious environmental pollution. Furthermore, they can't guarantee the safety and the running cost is very high due to special care. The new-typed pepper dryer has higher thermal efficiency which is up to 400% and its operational cost is only one third of that of the gas or coal-burning dryers. Drytech dryer can generate cold wind as running, which will improve the working environment in the workshop. We not only provide customized dryers in different types and sizes, but also modify the dryers to meet your requirements.

How to dry peppers with Drytech dryer

Drying peppers by phase is the best practice at present. In the first phase, dry the chilli(pepper) to reduce its moisture content from 75-80% to 50%, and then pile them up to sweat. In the second phase, dry the sweated pepper up. Piling pepper up for sweating is a very important step in the pepper drying process and has a great impact on quality and quantity of dried peppers and drying time.

Pepper becomes soft and inflated in the drying process. Piling peppers up for sweating plays a great role in improving quality of dried pepper. It will force pepper oil to permeate toward pepper's surface to make color of dried peppers uniform, red and smooth and to make water well-distributed. It only takes 20-40 hours to dry up pepper, and the number of yellow pepper is decreased. If not, it takes 63 hours to dry 1,000 kilograms of peppers at 40-60°C. Don't stir pepper too much in the second phase. Otherwise, damage rate will rise, resulting in decline of sales price. Drying time varies with the quantity and type of pepper.



Drying sweet potatoes

Sweet potatoes, often called “yams”, “Di Gua” and “Gan Shu”, are plenty in protein, starch, pectin, cellulose, amino acid, vitamins and mineral substances and are thus praised as “the food for longevity”. They help to cure cancers, protect hearts, prevent emphysema and diabetes and lose weight. In Japan, they are also praised as “a food for longevity” and have good pharmacological efficacy. Sweet potatoes are widely grown all over the country, and thus their yield is very considerable. They are very popular with people as they abound in polysaccharide and mucus protein necessary for human body. Typically, sweet potatoes are not processed but directly sold in the market, causing inconvenience in transportation and low price. If sweet potatoes processed into food products for sale, their added values will be greatly increased and better economic benefits will be achieved.



How to dry sweet potatoes with Drytech dryer

Preliminaries: Wash sweet potatoes; put them into the boilers to boil them; get them out before boiled thoroughly; and cut them into slices after they get cool. Make sure that all sweet potato slices have the same thickness first, and their size is relatively the same. After all procedures mentioned above have been completed, put the slices on the racks on an even and orderly basis.

Drying:

1. Raise the temperature in the cabinet to 30°C, and put the sweet potato slices in the cabinet. Set the temperature to 40°C, and dry sweet potatoes for 1-2 hours;
2. Set the temperature to 55°C, and dry sweet potato slices for 2 hours;
3. Set the temperature to 65°C, and dry sweet potato slices for 2 hours;
4. Set the temperature to 70°C, and dry sweet potato slices for one hour;
5. Turn off the power, and take out of the slices after one hour.

Packing sweet potatoes into bags:

Don't pack the slices into the bags unless they are cooled down.

All in all, the entire drying process takes about 8 hours with the highest temperature less than 70°C.



Drying red dates

As a traditional healthy food of Chinese people, red dates contain a plenty of nutrients. Fresh red dates are edible, but most of them are dried up and are directly eaten by consumers as a dried cleaning-free fruit. In addition, the growing areas are relatively centralized, and most of fresh red dates are harvested in autumn almost at the same time, and serve the whole market. For the sake of storage, transport and selling, the fresh red dates have to be rinsed, dried, cooled, softened, sterilized and packed.



Applications of Drytech dryer in drying red dates

What is the most important to cure red dates is to dry them up. The drying process is composed of evaporation of water and sugar conversion on the premise of maintaining the original quality of red dates as far as possible. Red dates abound in sugars. Among them, polysaccharide is not sweet, and becomes sweet only after inverted into simple sugars by the function of the biological enzyme. It is the reason why cured red dates is sweet. If we want to invert sugars fully, we need to strengthen the activity of biological enzyme. After a long time of practices, we have found the right temperature at which the complete conversion can be achieved is about 60°C.



How to dry red dates with Drytech dryer

Preheating: If we directly put red dates in the environment where the temperature is suitable for sugar inversion, the cell orifice in the skin will shrink and their crust will become hard, preventing water from evaporating because the extreme temperature difference makes red dates set off the protective reaction. First, preheat the cabinet completely on a gradual basis to evaporate most of water; and dry red dates at 35°C for 6-10 hours. When the temperature of red dates reaches 45°C, that is, your finger feels hot when touching it, dry them for 7-8 hours. After that, use your finger to press the red date and its skin wrinkles. When the temperature is at 45-48°C, there will be some small water drops on their skin.

Evaporation: Raise the temperature to 65°C (Note: the temperature shall not be higher than 70°C) within 8-12 hours to evaporate most of free water. Removal of moisture contributes to water evaporation. Keep the indoor temperature stable for constant evaporation. The drying process goes well in case the skin wrinkles.

Drying up: When the temperature in the red date is well-distributed, this phase will end within 6 hours. In this phase, moisture content of red dates is not high, and thus more attention shall be paid to temperature control. It is better that the temperature is held at 50°C. At this moment, the humidity has been reduced. If the humidity is higher than 60%, dehumidify a little. Water in red dates become balanced, and red dates are dried well. Note that the dried red dates shall be taken out in time.

Cooling: Keep good ventilation and heat dissipation for dried red dates. Pile them up until being cooled. If the dried red dates are just taken out from the cabinet, and directly piled up in the warehouse, their sugars will ferment and go bad, and the pectose will be broken down into pectin and pectic acid due to high heat. Red dates become very soft, and some acid threads are available due to change of sugars. Therefore, don't store dried red dates after they are cooled completely.

Drying mango

With succulent pulp, mangoes taste very pleasant, a mixed flavor of peach, apricot, plum and apple. In summer, mangoes help to promote fluid production, quench your thirst, clear summer heat and relax your mind. It is hard to keep them fresh and to transport for a long distance. We typically can them or cure them into preserved fruit, fruit wine, dried fruit, jam or jelly.



How to dry mangoes with Drytech dryer

Select fresh ripe mangoes: Lv Song mango, ZiHua mango and wild mangoes grown in Hainan are suitable for processing. Full pulp contributes to the rate of finished products. It would better that mangoes are nearly ripe. If the maturity is low, mangoes taste bad with poor color. They are perishable in case of post-maturity.

Washing: Put mangoes in the tank, rinse them with clear water flow, select unqualified ones, put qualified ones in the plastic baskets by size, and strain water

Peeling: Use a stainless steel knife to remove exocarp and scars by hand. Make sure the surface is smooth and even and all exocarp is removed. If not, tannin in the exocarp is easy to get brown in the process, which has a negative impact on color of finished products. Use a sharp blade to cut peeled mangoes into slices on a vertical basis. Each slice is 8-10 mm thick. The kernel still with some pulp can be made into juice.

Color protection: Use sulfur to smoke or soak slices to protect their color.

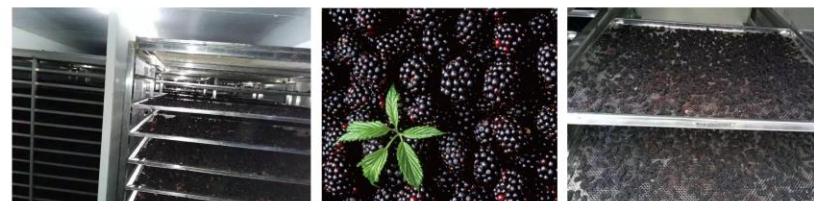
Drying: Put the mango slices on the rack (if soaked with sulfur, strain water first), and put the rack in the cabinet to dry the mango slices up.

At the beginning, the temperature shall be held at 70-75°C. In the later phase, the temperature shall be at 60-65°C.

Softening and packaging: If moisture content of mango slices meets the desired level, typically 15-18%, put them in the closed container for 2-3 days to soften them and make water balanced for packaging.

Drying Mulberry

Mulberry is a beautiful thing which reminds us of our childhood. Fresh ripe mulberry is sweet and juicy. Farmers like to eat it. It is one of fruits people often eat. Mulberry gets ripe in April to June. Children whose parents breed silkworms are happy to help their parents to pick mulberry leaves just because they can eat tasty mulberries. Pick up, sift, dry ripe mulberry in the sun or dry it after boiled. Dried mulberry is a good medicine in which contributes to nourishing liver and kidney, nourishing yin and blood and calming endogenous wind, and even to curing palpitation and insomnia, dizziness, tinnitus, constipation, night sweat, scrofula and sluggish movement of joints. Mulberry dryer is necessary for processing a large quantity of mulberries. Processing mulberry has stricter requirements on temperature and air supply high sugar content and great difference among mulberry granules. If the temperature is out of control, mulberry will become soft. If air supply is not enough, it will take much longer time to dry, resulting in a negative impact on quality of dried mulberry. We have gathered many construction and drying experiences in through large and medium-sized mulberry-drying projects in Chongqing, Zhejiang and Zhaoqing. We can escort for your business.





Drying Longan (Dimocarpus longan Lour.)

Longan is widely grown in South China such as Guangdong, Guangxi and Hainan as well as in Southeast Asia. Longan trees are easy to plant, have a longer lifetime, higher yield and can generate big economic benefits, so farmers are willing to plant them. Longan looks like the eye of Chinese dragon. They are not only edible but also effective in invigorating heart and spleen, benefiting qi and blood, strengthening the spleen and stomach and nourishing muscles. Dried longan (Gui Yuan) has greatly increased its values. Market price of high-quality dried longan per jin is about RMB 18 yuan. Drytech longan dryer is the best choice of longan factories.

Comparison of Drytech longan dryer with traditional longan dryer

Many traditional dryers are available in the current market. Some dryers still adopt the outdated drying technology. Some burn diesel which produces more heat, raises temperature faster but costs highly. If you want to cure 2 tons of fresh longan, you need to spend about RMB 1,000 yuan buying diesel. At present, few factories have used this drying method. Some factories adopt wood or coal-burning dryers. Both of them are affordable, but can't generate stable heat due to unstable heat power and need attending. Some other factories use boiler or steam dryers. Longan dried by such dryers has a good appearance with higher drying and human cost.

Drytech longan dryer can dry fresh longan up at 60°C within 20-25 hours. First, set the temperature higher so as to remove moisture quickly; second, reduce the temperature; at last raise the temperature on a gradual basis. In the second phase, keep the lower temperature for several hours to make water ooze from inner part to the surface. After that, raise the temperature to dry it up. The dried longan is has high quality and a good appearance. Drytech dryer doesn't need any coal, wood, boilers and steam but a small amount of electricity to drive its compressor to generate the necessary high temperature. Drytech dryer is not only safe and environmental, but also generates no pollution and emissions. In addition, it is energy-efficient and unattended when running on a fully-automated basis. It is the upgrade version of traditional longan drying equipment and fruit drying equipment.



Drying Litchi

Traditional drying equipment is still involved in some defects in drying litchi. For example, the drying time is too long, the color is inconsistent, energy consumption is too high, and the drying quality can't be guaranteed. For those reasons, we highly recommend you a new-typed drying device, Drytech litchi dryer, which has satisfied the market.

Comparison of Drytech longan dryer with traditional longan dryer

The ratio of fresh to dry varies with the type of litchis. Take 100 kilograms of dried litchis for example. The relative fresh litchi are listed below by type: Nuo Mi Ci: 400-450 kilograms; Xiang Li: 380-420 kilograms; Hei Ye and He Li: 320-360 kilograms.

In the first phase, hold the temperature at 65-70°C (when touching the skin, your finger feels hot) for 24 hours; and pack the litchi in the bags to pile up for 2-3 days after cooled.

In the second phase, hold the temperature at 55-65°C, and dry litchi for 10-12 hours.

If litchi is larger, place litchi for 3-5 days after the phase II is over. Dry it for the third time after water in the inner pula continues to ooze outward.



Drying noodles

Chinese noodles are made of refined flour without any preservatives and additives. Nutrients of flour have been retained effectively. Dried noodles can be stored for a very long time due to its complete dehydration.



How to dry Chinese noodles with Drytech dryer

Shape noodles with cold air: Typically, strengthen air movements, and make use of a large quantity of dry air to remove surface moisture of noodles without the temperature raised to shape them first. The drying temperature is at 20 -26°C, and air humidity at 55-65% RH.

Hold the humidity at a certain level for sweating: Strengthen ventilation to keep a good air circulation. Don't raise the temperature "abruptly" but on a "graded" basis. The drying time shall be 30-40 minutes with the temperature at 30 -35°C and the humidity at 75-85% RH.

Raise the temperature but reduce the humidity: After the phase above ends, it is necessary to raise the temperature further and to reduce the humidity to make sure that most of water in noodles is evaporated on a complete and timely basis. The drying time is 90 minutes with the temperature at 35-45°C and the humidity at 65-75% RH.



Reduce the temperature for heat dissipation: After the phases above, noodles are almost dehydrated and their structure is fixed. At this moment, you can keep the air moving to lower the temperature of noodles and to remove some water until their moisture content satisfies the quality standards. Hold the airing temperature at 26-28°C and the humidity at 50-60% RH for about 90 minutes.

Drying rice noodles

Many varieties of rice noodles are available, fresh, dried or wet. But their production processes are almost the same: rinsing rice- soaking - grinding - steaming - pressing into strips (threads) - re-steaming - cooling - drying - packing - finished products. The drying process is key to produce high-quality rice noodles. Drytech rice noodle dryer ensure that the drying process is not interrupted so as to make rice noodles in good color and dried evenly, and saves energy and protects the environment.

Case study about Drytech dryer

According to the actual data provided by a rice noodle factory in Zhengzhou, Henan, Drytech heat pump dryer (DT1000HD) spent four hours drying 1,000 jins of wet rice noodles into 300 jins on a full-load basis. If the electricity consumption is 13 kilowatts per hour and the electric charge is RMB 1 yuan per hour, its running cost is RMB 52 yuan and drying 1-jin rice noodles costs only RMB 0.05 yuan.





Drying Fu Zhu (Bean sticks)

Beancurd sticks, also known as tofu skin, tofu or tofu robes, is a food made from soybeans. During the boiling of the soy milk, a film or bean hull is formed on the surface of the liquid in an open tray. The film was collected and dried into yellow flaky tofu skin. Since tofu skin is not produced with a coagulant, it is not technically a suitable tofu; however, it does have a similar texture and flavor to some tofu products.

Beancurd sticks drying:

In the first step, the evenly hanged beancurd sticks material truck is propelled into the air energy heat pump beancurd sticks drying room, and the parameter setting is started: the first step of drying and preheating is 50-60 ° C, and the drying time is about 30 minutes, so that the surface of the beancurd sticks is not sticky. Out of the drying room, after a little cool, remove the flat swing from the pole on the bamboo canopy or other material tray;

The second step is to enter the same drying room, high temperature drying a large number of dehumidification stage, the temperature is about 60 ° C, drying for about 2 hours, until the water drops to 15-20%, and then out of the drying room;

The third step is constant temperature drying stage 45-50 ° C, the relative humidity is controlled below 50%, about 5 hours, the water can be reduced to about 7-8%;

The fourth step is to ensure that the beancurd sticks has certain toughness, the drying time is about 1 hour, the water content is about 8%, and the whole drying process is completed after the beancurd sticks enters the normal temperature.

It is worth noting that beancurd sticks belongs to the drying of food materials. The whole drying process needs to pay attention to controlling the temperature. If the temperature is too low, it will rot. If the temperature is too high, it will break or burst, affecting the appearance. The temperature control determines the puffing of beancurd sticks. Oil, color and other important qualities. In addition, the drying process does not start to dehumidify quickly. If the humidity is not properly controlled, the packing process will cause the beancurd sticks to be brittle, affecting the yield of the finished beancurd sticks and causing waste. Similar products like noodles, rice noodles, sweet potato powder, beancurd sticks, dried bean curd and mushroom, such as mushrooms, pine mushrooms, fungus, chicken legs, etc. should also pay attention to the above principles, fixed color and shape, to ensure the appearance and fullness of the finished product. Degree and rehydration are also very important.

Pay attention to the above points, the dried beancurd sticks has good quality, the surface oil and gloss are appropriate, not easy to be brittle, retaining the color, fragrance, taste and shape of the finished product, and the humus drying process has zero pollution and low loss.



Drying tobacco

In recent years, more and more attentions have been paid to upgrading of the curing barns and development of alternative energy sources of coal in the wake of development of the modern tobacco agriculture. As the environmental heat-generating equipment, the heat pumps have become popular in developed countries. Chinese scientists and engineers, together with some enterprises, have made an attempt to apply the heat pump and its supporting technology to the tobacco curing process. According to the attempts, the heat pump cabinet can make full use of the air source instead of coal to dry tobacco leaves. It is proven that the quality of tobacco dried in such way has been greatly improved and the drying costs has been greatly reduced.



How to dry tobacco with Drytech dryer

Curing phase	Automated setting	Temperature setting (°C)		Drying time (h)	Total time (h)	Change of tobacco leaves		Attention
		Dry bulb	Wet bulb			Wetness	Color	
Leaf preheating	The first step	34-38	34-36	0.5-1	50-56	Most of stems at the upper part are green, the lower part is still green.	Green at the upper part, yellow at the lower part. The lower part is still green.	Temperature control. Tobacco at the lower part with higher moisture content is dried slowly.
	The second step	45-47	38-38	0.5	25-30	Green at the upper part and yellow at the lower part.	All leaves completely yellow and become soft.	Make sure that leaves completely yellow and soft before entering the next step.
Color setting	The third step	48-48	38-38	0.3-0.5	20-25	All leaves are completely yellow.	Green at the upper part and yellow at the lower part.	Always controlling relative humidity and RH of the tobacco. The temperature is 45-50°C.
	The fourth step	52-54	38-40	0.3-0.4	20-24	Turn the back of leaves to reduce the relative humidity.	All leaves are rolled and become soft.	Control the drying time to ensure the tobacco has the best appearance and fullness.

Curing phase	Automated setting	Temperature setting (°C)		Drying time (h)	Total time (h)	Change of tobacco leaves		Attention
		Dry bulb	Wet bulb			Wetness	Color	
Stem drying	The fifth step	60	41	1	52-54	The stem is still green.	The stem is still green.	Stem: the temperature is 60°C, the relative humidity is 50%, and the temperature is kept the same.
	The sixth step	58	42	1	20-24	The stem is completely yellow and soft.	The stem is completely yellow and soft.	Stem: control the temperature, make the temperature on the stem in the range of 50-55°C. The stem is completely yellow and soft. The stem is completely yellow and soft.



Drying sausage

In a broader sense, La Wei (a collective name of some cured traditional Chinese foods) is involved in many varieties such as bacon, sausages, smoked fish, dried rib chops, dried ducks, preserved eggs, etc. A sausage is very common in Guangdong, Hong Kong, Macao and other regions in South China. A sausage is formed in a casing made from small intestine of the pig and stuffed with pork, compressed, dehydrated and dried. Quality of sausages is not only left to its accessories but also to the drying and moisture-removing process. The curing process needs to remove the moisture, keep its original color, flavor, taste and shape, and to ensure that it neither goes bad, nor mildew nor ferments in its shelf-life. All mentioned above are closely linked to drying and moisture removal.



How to drying sausage with Drytech dryer

Dry at a high temperature: Dry it at 65-68°C for 3-4 hours to let materials ferment to keep them tasty.

Dry at slow speed: Hold the temperature at 50-55°C and the humidity at 45% for 4-5 hours to form color and to compress and shape the casing. In this phase, the casing turns fresh red from light red on a gradual basis, and start to shrink. Note that it would be better to use cold air and hot air at turn to prevent the casing from getting hard.

Dry at rapid speed: The temperature is key to this phase. It is necessary to increase the temperature to 58-60°C and to hold the relative humidity at 38% to accelerate drying. This phase lasts 10-12 hours. The dried sausage contains 17% of moisture by weight.

Drying fish

A great variety of dried fish are available at present. Both marine fish and freshwater fish can be dried. The former has a smaller size and a less strict requirement on the range of drying temperature than the latter does. It has higher quality after dried. Besides the traditional process method, that is, drying in the sun, a great quantity of drying equipment is available in the market, but color and nutrients of fish dried by that equipment are quite different since there are no agreed standards. Fish dried by coal or oil-fueled boilers or other wood-fueled equipment is contaminated. That is why they are prohibited. In the wake of development of technology and science, we have developed Drytech all-in-one high-temperature heat pump machine which has eliminated the problems mentioned above including insanitation, high energy consumption and much labor.



Attentions

The early temperature shall not be too high since the high temperature has a negative impact on drying quality.

Fish contain a lot of water, but also fat and grease, so it is very hard to remove water from them. Therefore, control over the speed of dehydration is of importance.

Color of cured fish is another important factor.

Be ventilated well in the drying process to prevent water vapor from staying on the surface of casings.

Drying Shrimps

Dried shrimps are so tasty that they are the favorite of foodies and "tipplers". In terms of the ways to eat shrimps, Li Shizhen wrote in the Compendium of Materia Medica, saying "The most delicious shrimps are those which are steamed first, dried in the sun and shelled at last. Eat them with ginger and vinegar. What a treasure of food!". As well-known marine products, dried shrimps have high nutritive values. The way to cure shrimps is involved in clearing, boiling, drying, shelling, and packaging. Among them, drying and shelling are the most important. The method of drying shrimps in the sun has not been applicable to production at large scale. Most enterprises have adopted professional shrimp dryers.



How to dry shrimps with Drytech dryer

Steaming: Steaming or boiling shrimps in clear water is key to the curing process. Steam fresh shrimps for 10 minutes until they are easy to shell and the color of shrimps turn red from bluish white.

Drying: Shell the steamed shrimps, put them on the plate or rack on an even basis, and dry them at 50-65°C until the moisture content is reduced to 18%.

Inspection: Sort out the dried shrimps into groups and remove other things.

Measurement and packaging: Place them into the packing bags based on measurement after inspection.

Drying incense

It is very easy to make incense, but the traditional incense-drying process has not met the increasing demand of people as demand exceeds supply in the current society. The traditional method is to occupy vast land to build open airing shelves where the incense is put and dried in the sun or with its after heat. Incense will easily go bad with its color ruined in case of a rainy or cloudy day. Even a lot of factories have stopped making it. It is clear that the uncontrollable environmental conditions have greatly negative impact on economic development of the incense manufacturers. A new-generation drying process is required in case of mass production.

The drying procedure is key to make incense, and more so in South China. It rains so often there that the traditional drying site with a large area is not applicable. Therefore, many incense manufacturers can't make incense though having orders, even they make incense which can't be dried. Drytech heat pump dryer has resolved the problem. It is not subject to the time and the weather conditions, and is quite energy-efficient, environmental and cost-effective. Our professional engineers will help you install it. It is the best to dry incense!



How to dry incense with Drytech dryer

Phase I:

Set the temperature to 45°C and the humidity to 80% RH. Dry it for 5-6 hours.

Phase II:

Set the temperature to 50°C and the humidity to 60% RH. Dry it for 3 hours.

Phase III:

Set the temperature to 55°C and the humidity to 40% RH. Dry it for about 1 hour, and then you'll get dried incense.

Drying wood

Fresh wood contains a lot of moisture which will continue evaporating in a certain environment. If water evaporates naturally, wood will shrink, crack, bend, deform and even ferment, which will damage the quality of wood products. Therefore, wood has to be dried on a controllable basis before made into wood products. The correct drying process can overcome the defects mentioned above, and enhance its mechanical strength and processability. It is an important technology-based measure to make reasonable use of wood and to add its values and a primary and necessary procedure to produce wood products. Energy consumption of drying wood accounts for 40-70% of the total of producing the wood products. The drying process wastes heat too much with the energy consumption of 30%. The energy cost in the drying process occupies more than 50% of the total drying cost. As imbalance between supply and demand of energy is increasing and the environmental problem caused by the atmospheric greenhouse effect is more and more severer, the wooden industry pays greater attention to the energy-saving wood-drying process. In the past twenty years, many drying technologies have been developed. Among them, the heat pump drying process has posted a better performance in saving energy. Drytech wood dryer has the capability of drying varieties of wood such as logs, rose-wood and cabinet-wood, and really solves the problems customer are faced with in the drying process.

Factors influencing the wood drying

Wood temperature: Measure and control the dry-bulb temperature to adjust the working status of the heating system so as to control the temperature in the cabinet.

Wood humanity: Measure the difference between dry-bulb temperature and wet-bulb temperature to adjust the dehumidification amount and the working status of the spraying system to automatically control the humanity in the cabinet.

Moisture content of wood: Adopt the resistance-based moisture meter to prevent limitation and deviation arising from measurement and to provide effective technology-based guarantee for accurate performance of the moisture content baseline for wood.



How to dry wood with Drytech dryer

The wood drying equipment which wants to dry wood on a controllable basis must have the three basic functions: heating, adjustment of humanity and ventilation. Heating speaks for itself. Adjustment of humanity is used to provide the high-humidity environment necessary for some phases to prevent wood from cracking and deforming. The ventilation device must ensure that the wet and hot air goes through the pile of wood evenly so as to make the water in the dried wood well-distributed. In the early drying process, the performance coefficient (COP) of the heat pump unit is high due to high relative humidity of the wood to be dried. As the drying process goes on, the COP will decline due to decrease of the relative humidity, resulting in lower performance of the unit on a negative basis.

If the temperature is not high, for example, the low-temperature heat pump is below 54°C, moisture can't be removed from the wood in case the moisture content is below 15%. Generally, it is necessary to raise the drying temperature to 71°C or above.

The drying cabinet shall be thermal-insulation and resistant to air loss. In terms of the thermal insulation, the cabinet structure shall have a small thermal capacity to reduce heat loss, which is equal to or less than the mechanical equivalent of heat. No humidifying equipment is installed in the heat pump drying cabinet. If the water vapor overflows, it is definite that the drying condition is hard to change. Therefore, the cabinet shall have good air impermeability.

Keep the air flow in the cabinet stable. It is the best if the air speed is 1m/s.



Drying rubber

Natural rubber refers to the elastic solid material which is made of the natural latex collected from the rubber tree by using the processing procedures such as solidification and drying. At normal temperature, it has very good elasticity and mechanical strength and somewhat of plasticity. It loses less energy in case of hysteresis. It generates less heat even if deforming several times, and thus it has good resistance to bending. It is non-polar, and according it has good electrical insulation. It is not ageing resistant, which is its "the heel of Achilles". All in all, the attention must be paid to optimal control over the temperature in the drying process.



Advantages of Drytech rubber dryer

Drytech air source heat pump dryer makes higher use of heat source, saves energy and protect the environment. Compared with the oil or coal-burning drying equipment in the natural rubber processing industry, Drytech dryer controls the temperature on a stable basis. Its control system is capable of set the temperature for various time periods. It also controls the temperature on a smart basis. The unit can adjust the drying time and temperature based on the requirements of the drying process on multi time periods. The smart control achieved by using the temperature and humidity curve program fully protects and enhances the reasonable performance indexes of the natural rubber, and reduces the drying cost. In addition, Drytech dryer is under phase-lose and high and low-pressure protection, reducing the fire risks and enhancing the productivity of rubber.



Drying leather

Leather is made from the animal skin which is denatured and is not perishable after cured by using the physical and chemical processing involved in depilating, tanning, etc. Leather is formed by tight knitting of natural protein fibers in the three-dimensional space. A special papillary layer is available on the its surface, so that it is grainy, glossy and has a comfortable hand touch.

The process to cure the animal skin is very complicate and includes dozens of procedures: Ride hide, soaking, fleshing, degreasing, depilating, alkali cleaning, swelling, deliming, softening, pickling, tanning, splitting, shaving, re-tanning, neutralizing, coloring, fat liquoring, filling, drying, trimming, and finishing the finished leather.

How to drying leather with Drytech dryer

Dry the tanned and stuffed fur which contains 60% of moisture content by weight. The finished fur is required to contain 12-18% of moisture. Wet fur has higher plasticity, and its hide fiber is unfixed, so mechanical operation can't be done. The hide fiber is shaped after the fur is dried, and it is easy to trim and finish.

Hang the fur on the stick or the rope which will be put in the drying cabinet. The moisture content shall be kept at 30-40% prior to drying.

Equipped with facilities to accelerate heat dissipation, air flow and ventilation, Drytech leather drying cabinet is not subject to the environment and the climate. It is quick and efficient in drying leather.

Keep moisture in the fur well-distributed. After dried, the fur shall be piled for more than 12 hours to balance moistures in it.



Drying waste solid

Waste solid (Sludge) in the rivers and water channels with a great variety of microorganisms has been neglected for a long time, and has caused a lot of problems for urban environmental management. We have developed a sludge property-based technology. Such patented technology can dry the sludge up. In the wake of high-speed economic development and increasing yield of the sludge, people are increasingly aware of the sludge treatment. The treating methods, including sludge drying, using the sludge as the fuel, land application, burning, and land filling, become feasible.



Analysis on the electroplating sludge drying project

With two Drytech air source drying and water-removing machines (12HP) and the cabinet we designed specifically, Huizhou Huibang Group is able to dry 1.5 tons of sludge at a time. The drying time is 6 hours, which has met their standard requirements. The drying effect is beyond they expected. They had planed to purchase German-based equipment with the unit price of RMB 300,000 yuan. They heard about our drying equipment. They directly took the sludge sample to our company for test. Once the test result satisfied them, they decided to buy two 12HP drying machines, which have succeeded in helping them to reduce their environmental expenses. It is proven that Drytech sludge dryer has made contributions to China's environmental protection. Huizhou Jianbang Group also asked its branch factories to adopt our drying equipment. Congratulate that Drytech sludge drying project has successfully solved the problem of the industrial sludge.

Printing industry

Flexible packaging enterprises have been troubled by printing drying process. Traditional drying methods with many shortcomings force more and more those enterprises to adopt advanced and reliable heat pump drying devices. The printing industry is undergoing the reform of its drying technology.



Drying problems and solutions in the current printing industry

What is the most important for the flexible packaging enterprises is the drying effect. Drytech dryer set is equipped with a smart control system to guarantee the drying effect. The flexible packaging enterprises make packing bags and do color printing on them with many chemical materials which are sensitive to the temperature in the drying process. Accordingly, the printing drying process should be refined and accurate. The control system of Drytech heat pump dryer can manage the temperature in the constant-temperature drying cabinet on an accurate basis. The dryer controls the moisture-removing opening by remaining relative humidity for the purpose of drying and removal of moisture. The drying results achieved based on the fully-automated drying procedures and the data monitoring convince our customers.

Drying cost reduction is what flexible packaging enterprises try to achieve in printing process for a long time. Drytech heat pump dryer can save energy remarkably for it can significantly reduce power consumption. Drytech heat pump dryer raise the temperature by absorbing the heat in the air so that they can use 1kWh to generate the same heat as the traditional "electrical heating" method does using 4kWh. It dramatically reduces the operational costs in printing drying as well as the installed electric capacity.

What both flexible packaging enterprises is to bring air pollution under control and to lower high temperature in the workshop. Drytech heat pump dryer will solve both problems. Traditional printing drying method produces high temperature and disgusting smell in the workshop. Under these circumstances, workers suffer a lot and flexible packaging enterprises can't recruit sufficient employees. Drytech heat pump dryer unit uses the hot air to dry. The organic exhaust gas and water vapor produced in the process is directly extracted by the moisture-removing system, preventing pungent exhaust gas flowing into the workshop. Furthermore, Drytech heat pump dryer can recycle the heat in the air and convey the cold air it generated to the workshop, lowering the temperature there and creating a working environment with fresh air and comfortable temperature for workers.

PROJECT



Drying Panax pseudo-ginseng



Drying Panax pseudo-ginseng



Drying maca



Drying worm grass flowers



Drying aniseed



Drying ginseng



Drying Morinda officinalis



Drying lily root



Drying chayote slice



Drying Chinese wolfberry



Drying red date



Drying dendrobe



Drying rhizoma gastrodiae



Drying fig



Drying white fungus



Drying Purple yam



Drying Chinese yam



Drying orange peel



Drying ginger



Drying ginger





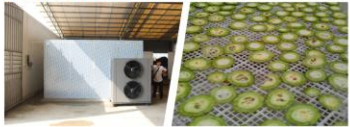
Drying red chilli



Drying red chilli



Drying balsam pear



Drying bamboo shoot



Drying bamboo shoot



Drying sweet potato slice



Drying okra



Drying chrysanthemum flower



Drying honeysuckle flower



Drying dragon fruit flower



PROJECT



Drying mushroom



Drying mushroom



Drying edible fungus



Drying dried beancurd stick



Drying brown sugar



Drying noodle



Drying noodle



Drying noodle



Drying rice noodle



Drying rice noodle





Drying rice noodle



Drying sweet potato noodle



Drying sweet potato noodle



Drying sweet potato noodle



Drying fish



Drying fish



Drying shrimp



Drying shrimp



Drying longan



Drying mungo



PROJECT



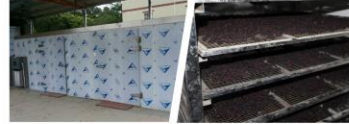
Drying mango



Drying lemon



Drying mulberry



Drying persimmon



Drying sausage



Drying sausage



Drying sausage



Drying sausage



Drying sausage



Drying sausage





Drying sausage



Drying chicken foot



Drying tobacco leaves



Drying tea



Drying wood



Drying furniture



Drying redwood



Drying redwood



Drying wood



Drying rubber glove



PROJECT



Drying incense



Drying incense



Drying incense



Drying incense



Drying incense



Drying incense



Drying sludge



Drying sludge



Drying sludge



Drying paper tube





Drying rice noodle



Drying white fungus



Drying sudge



Drying vegetable



Drying chicken



Drying wood



Drying chrysanthemum flower



Drying redwood



Drying Morinda officinalis



Drying Citrus tea



PROJECT



Drying rice noodles



Drying incense



Drying Pineapple



Drying Pineapple



Drying Ginger



Drying orange peel



Drying pineapple



Drying rose



Drying apricot kernel



Drying cigar



PROJECT



Red tangerine peel, Huazhou



Oil tea seed, Yunfu



Paper tube, Zhongshan



Aniseed, Baise, Guangxi



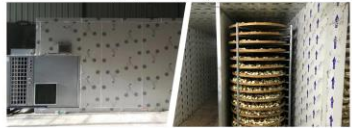
Jasmine flower, Tengxian, Guangxi



Sheepskin, Jiangmen



Orange peel, Jiangmen



Solid waste, Zhejiang



Chilli, YunNan



Sweet potato, Guangzhou



Sweet potatoes



Bamboo shoot



Vegetable



Okra



Orange peel



Mushroom



Longan



Chrysanthemum



Persimmon



Walnut



PROJECT



Gouqi, Ningxia



Red Date, Shandong



Black Gouqi, Xinjiang



RADIX MORINDAE OFFICINALIS



Noodle, Fujian



Noodle, Hunan



Noodle, Fujian



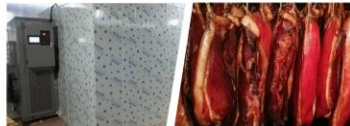
Noodle, Ningde



Rice Noodle, Zhejiang



Pork, Sichuan



Sausage, Sichuan



Fish, Fujian



Shrimp, Guangdong



Fish, Guangdong



Sea fish, Zhanjinag



Paper tube, Guizhou



Incense, Jiangmen



Incense, Guizhou



Wood board, Hunan



Waste solid, Suzhou





Rose, Hunan



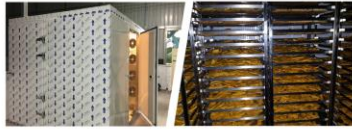
Mushroom, Yunnan



Waxberry, Fujian



Pumpkin, South America



Paper tube, Guangdong



Paper tube, Hunan



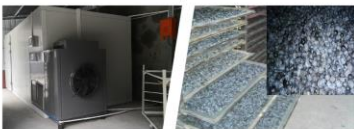
Paper tube, Fujian



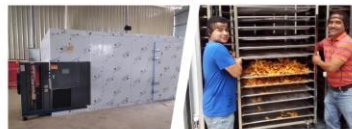
Paper tube, Guangdong



Buleberry, Guizhou



Pumpking, Honduras



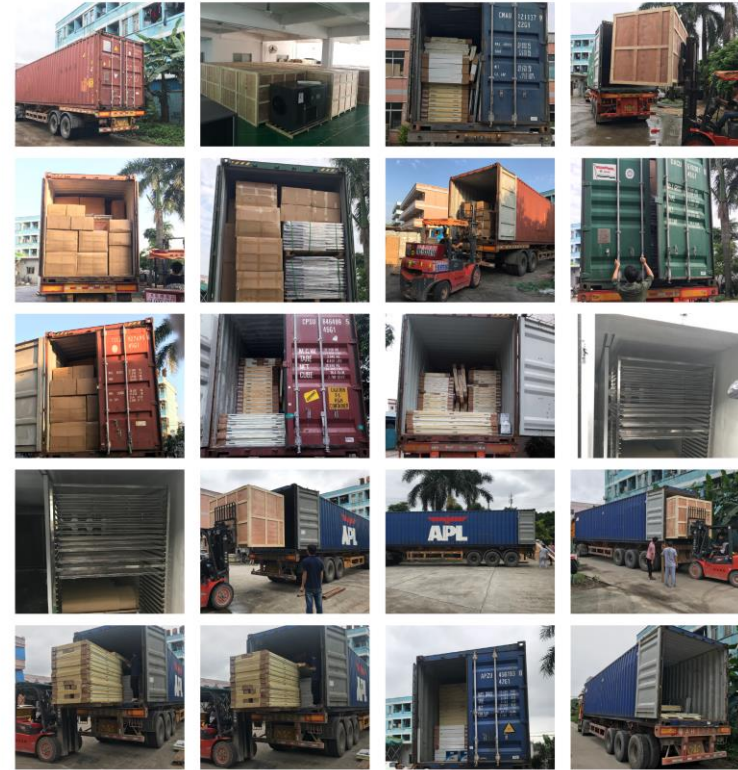
Customers Visit Drytech



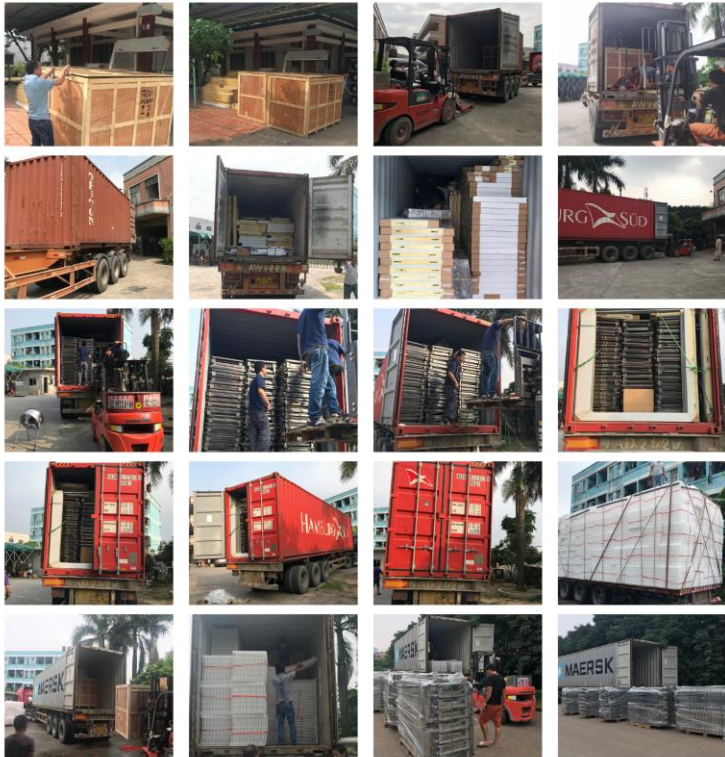
Shipments



Shipments



Shipments



Shipments

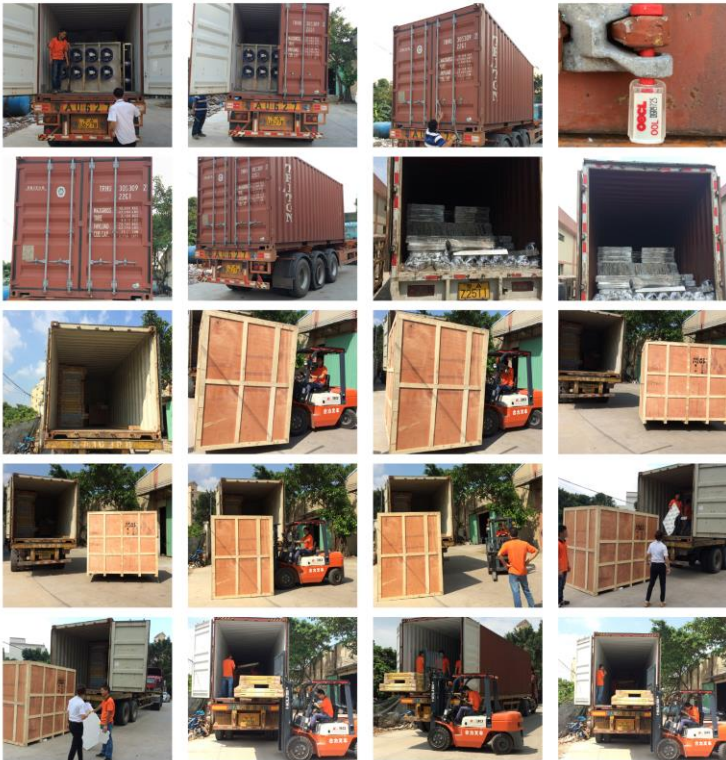




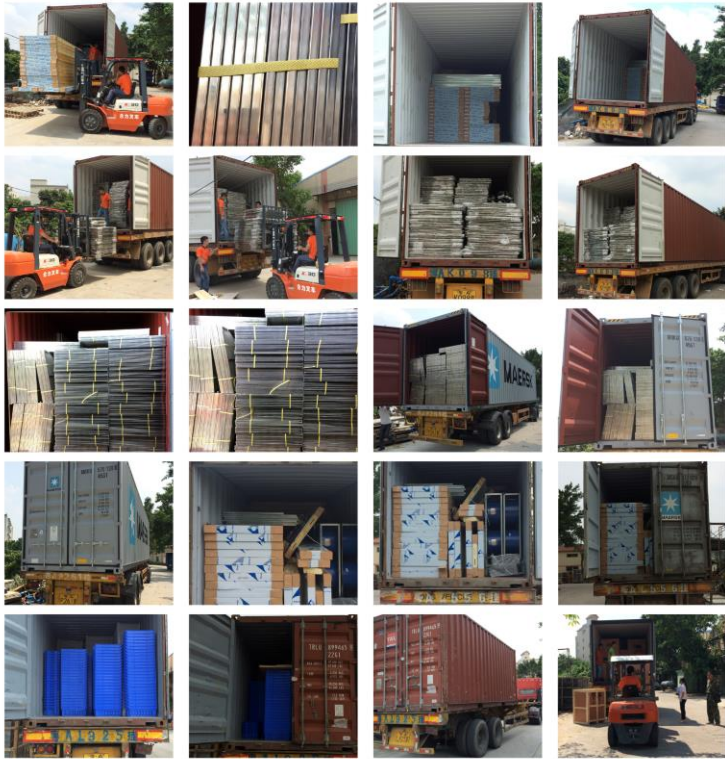
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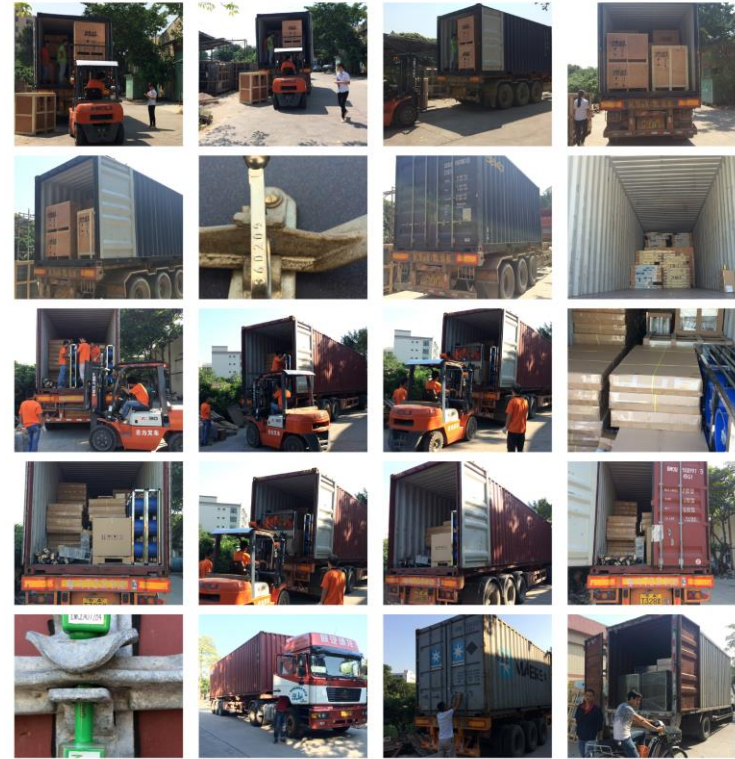
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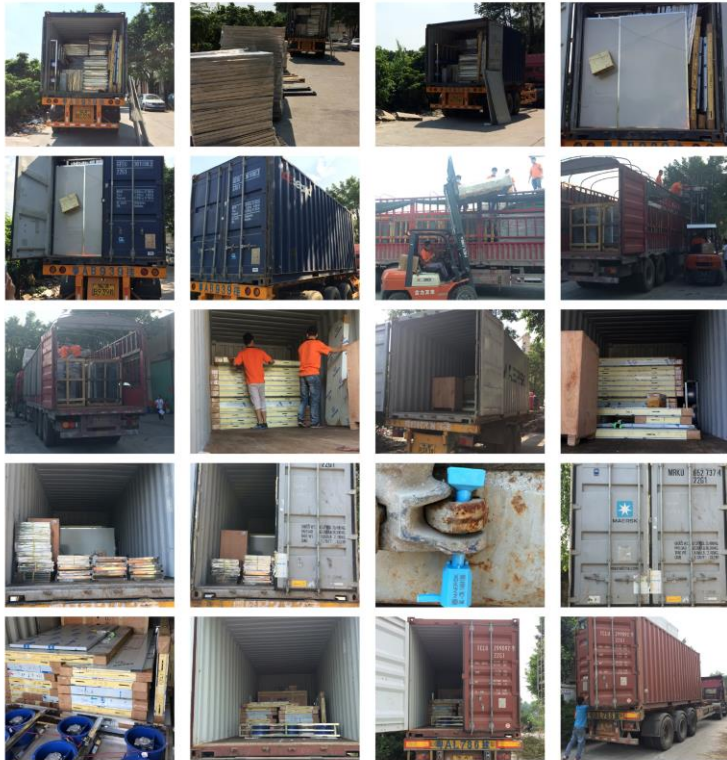
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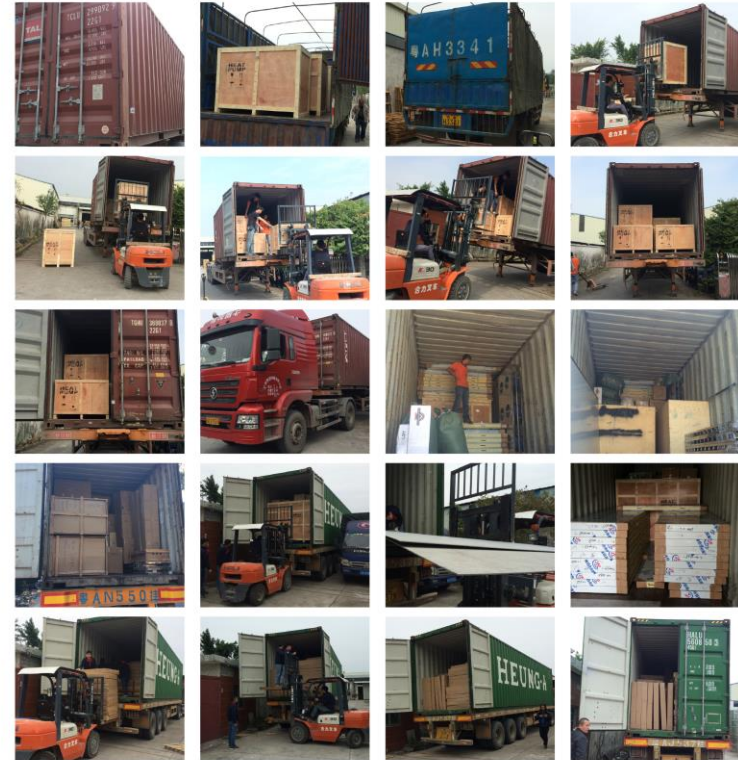
Shipments



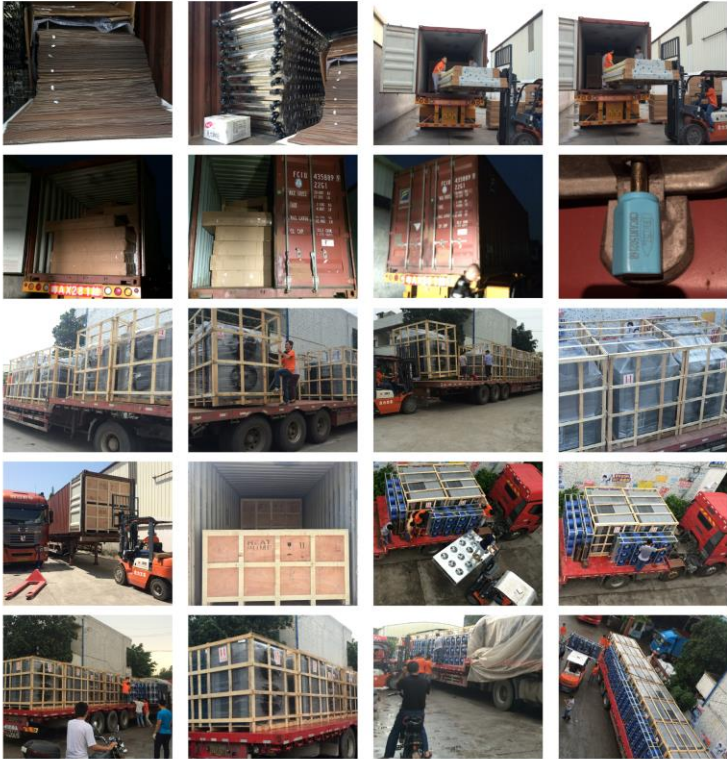
Shipments



Shipments



Shipments



Shipments

