

成就客户的事业
就是成就我们的事业
To achieve our customers' business
is to achieve our own career



天水华圆尚御科技有限公司
Tianshui Huayuan Machinery Technology Co., Ltd.

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干燥设备
Drying Equipment

天水华圆尚御科技有限公司
Tianshui Huayuan Machinery Technology Co., Ltd.



企业简介

天水华圆尚御科技有限公司成立于2019年05月10日，注册地位于甘肃省天水市麦积区社棠工业园众创大厦2层217-13号。近年来公司荣获了知识产权认证、AAA级信用企业等级证书及六项专利，现有员工和技术人员90余人。

公司主要经营制药机械、环保机械、食品机械、化工机械、农业机械、食品工业机电一体化设备、微波设备的研发、生产、销售、安装、调试；提供人工智能、物联网、工业信息化软件系统、信息系统集成服务以及与之相关的技术咨询。公司拥有一支行业经验丰富，能吃苦、敢打拼、团结向上的团队，目前有稳定的丸剂生产线和干燥设备行业客户。成立两年多来，已为九芝堂、河西制药等众多中药制药企业提供了优良设备。目前主要运营模式一是为国内中药制药厂商提供丸剂类项目整体解决方案；二是为既有客户丸剂项目整体改造、升级提供专业化解决方案；三是为国外客户提供定制化服务、为既有客户提供有偿售后服务。

适逢我国正在大力发展中医药产业，国内中医药历史文化深厚，中华民族自古以来都是依靠中医药治病救人。特别是经过抗击非典、新冠肺炎疫情等重大传染病之后，我们对中医药的作用有了更深的认识，国民更注重用现代科学解读中医药学原理，公司喜迎千载难逢的发展机遇，作为中医制药装备制造企业，我们将抓住中医药振兴发展大好时机，为中药制药企业提供更加全面完善的解决方案，为人民群众提供更加便捷贴心的健康服务。

企业使命Corporate Purpose and Mission:

- | | |
|-------------|--|
| 对客户负责，服务至上； | Be responsible for customers, service first; |
| 对员工负责，安家乐业； | Be responsible for employees, enjoy a good life; |
| 对股东负责，资产增值； | Be responsible for shareholders, increase asset value; |
| 对社会负责，建设国家。 | Be responsible to the society and build the country. |

Company Brief Introduction

Tianshui Huayuan Machinery Technology Co., Ltd. was set up in 5th,Oct.,2019,registered address:No.217-13 Building 2,Zhongchuang Building,Shetang Industrial Zone,Maiji District,Tianshui City,Gansu Province.In recent years,our company has the honour to get the Intellectual Property Certification,the AAA Credit Enterprise Certificate and Six patents,within employees 90.

The company is mainly engaged in the research and development, production, sales, installation and commissioning of pharmaceutical machinery, environmental protection machinery, food machinery, chemical machinery, agricultural machinery, food processing equipment, and microwave equipment; providing artificial intelligence, Internet of things, industrial information software systems,Information system integration services and related technical consulting. The company has a team with rich industry experience, can endure hardships, dare to work hard, and unite forward. At present, there are stable pill production lines and drying equipment industry customers. Since its establishment more than two years ago, it has provided excellent equipment for many Chinese medicine pharmaceutical companies such as Jiuzhitang and Hexi Pharmaceutical. At present, the main operating model is to provide domestic Chinese medicine manufacturers with overall solutions for pill projects; the second is to provide professional solutions for the overall transformation and upgrading of pill projects for existing customers; and the third is to provide customized services for foreign customers. Customers provide paid after-sales service.

It coincides that my country is vigorously developing the Chinese medicine industry. The domestic Chinese medicine has a profound history and culture. Since ancient times, the Chinese nation has relied on Chinese medicine to treat diseases and save people. Especially after fighting against SARS, new crown pneumonia and other major infectious diseases, we have a deeper understanding of the role of Chinese medicine. The people pay more attention to the interpretation of the principles of Chinese medicine with modern science. The company welcomes a golden opportunity for development as a Chinese medicine pharmaceutical equipment. For manufacturing enterprises, we will seize the opportunity for the revitalization and development of Chinese medicine, provide more comprehensive solutions for Chinese medicine pharmaceutical companies, and provide the people with more convenient and considerate health services.



现代化的办公设施 营造和谐轻松的氛围 促成高效的工作

我们不断投入和改善，努力为员工提供安全、健康和愉悦的工作环境。我们始终鼓励员工在工作中学习，在学习中成长。成为对客户负责、对社会有用的人才。壮大企业、贡献社会是华圆人的共同追求。不断为用户创造财富，为社会奉献价值，把华圆建设成为引领行业发展潮流的优秀企业。

We continue to invest in and improve, and strive to provide employees with a safe, healthy and pleasant working environment. We always encourage employees to learn at work and grow in learning. Be responsible to customers and useful to society. The common pursuit of Huayuan people is to strengthen enterprises and contribute to society. We will continue to create wealth for customers, contribute value to the society, and build Huayuan into an excellent enterprise that leads the development trend of the industry.



办公楼 The office building



记录今日收获，确定明日起点

Recording today's harvest and determining tomorrow's starting point

荣誉的取得，归功于每一位默默奉献的华圆人，也是对华圆追求品质的鼓舞和鞭策。不满足于现状、不断向新的台阶迈进，是华圆人锐意进取、永不停歇的信念。

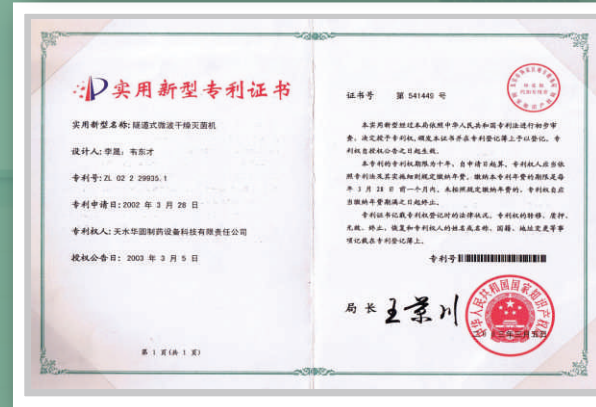
The achievement of the honor is attributed to every Huayuan person who silently contributes, and is also an inspiration and spur to Huayuan's pursuit of quality. Not satisfied with the status quo, and constantly moving forward to a new level, is the commitment of Huayuan people to forge ahead and never stop.

做 精 做 强



客户信赖来自卓越品质 发展动力源于持续研发

Customers' trust comes from excellent quality
Development power comes from continuous R&D



合作共赢 共创新绩

Coperating and win-win, gaining new achievements together

华圆已与国内外众多知名企业达成战略合作伙伴关系。华圆今天的成就，离不开每一个华圆人的坚持与奋斗，更离不开广大战略合作伙伴多年的相伴与支持。华圆一直怀着一颗感恩的心，在今后的岁月里，与您合作共赢，共同成长。

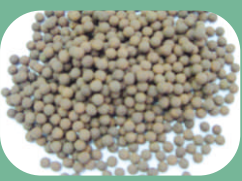


Huayuan has reached strategic partnership with many well-known enterprises at home and abroad. Huayuan's achievements today are inseparable from the persistence and struggle of every Huayuan person, and also from the company and support of the vast number of strategic partners for many years. Huayuan has always been with a grateful heart. In the years to come, we will cooperate with you for win-win results and grow together.



HYGW型丸粒滚筒干燥机

HYGW pill drum dryer

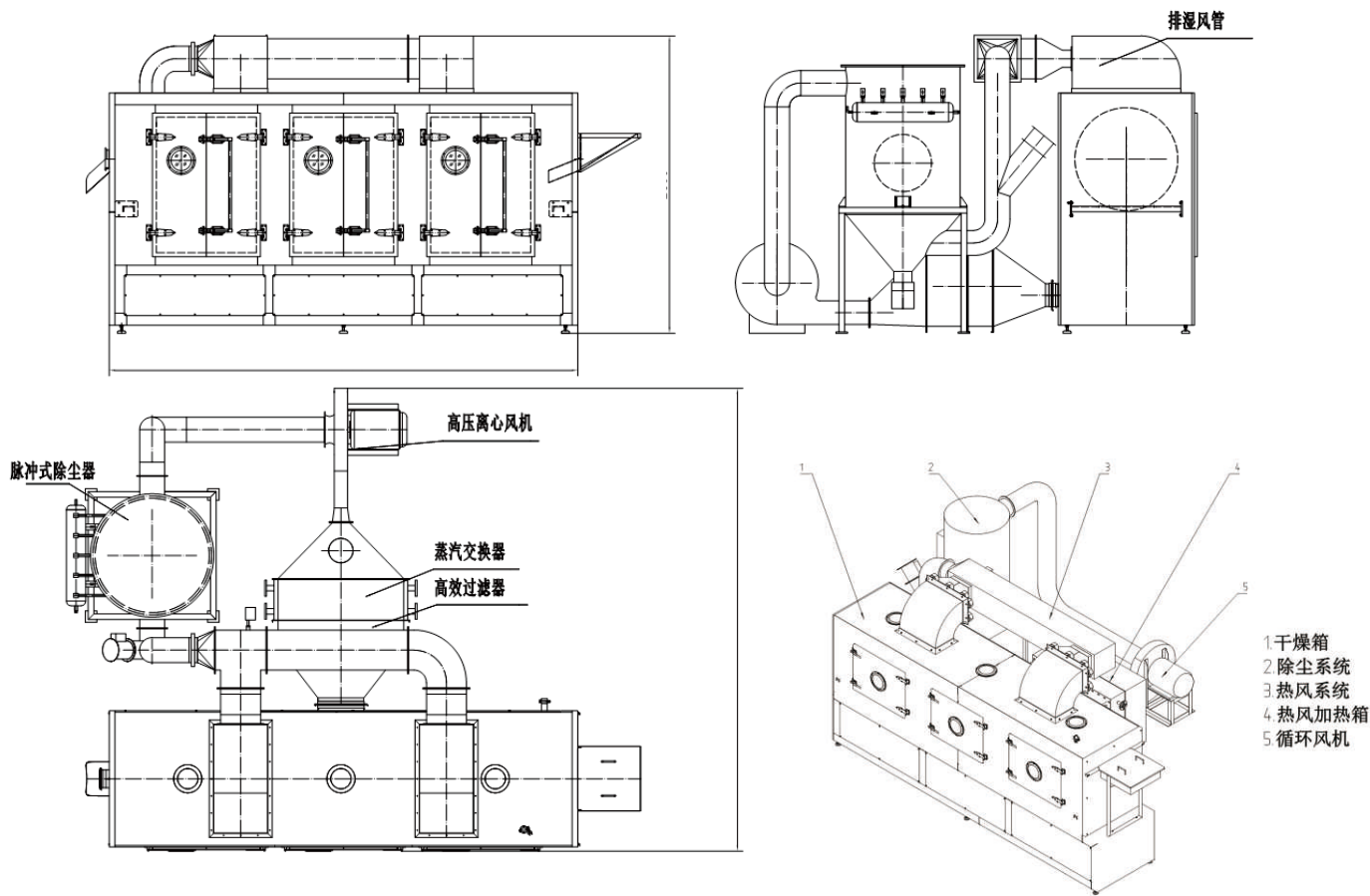


主要用途：

该设备由鼓风机将洁净空气经加热器，把空气加热到工艺要求的温度，鼓入风室。热风通过转筒小孔与转筒内物料进行充分的传热、传质，在短时间内使物料得到干燥。干燥后的余热空气经布袋除尘器、空气过滤器净化后进入鼓风机，在鼓风机入口处设有新鲜空气补充阀，在鼓风机出口处设有湿空气放散阀，以调节循环系统内的温、湿度。热空气循环系统充分利用余热提高热效率。适用于不易干燥均匀、互相易附着、在干燥过程中需充分搅拌的颗粒状物料的干燥，尤其适合中药小蜜丸、水蜜丸、水丸的干燥。

Main purpose:

This equipment uses the blower to heat the clean air through the heater to the temperature required by the process, and then blow it into the air chamber. The hot air carries on the full heat and mass transfer through the small hole of the rotary drum and the materials in the rotary drum, and makes the materials dry in a short time. After being purified by bag filter and air filter, the dried waste heat air enters the blower. Fresh air supplement valve is set at the inlet of the blower, and wet air release valve is set at the outlet of the blower to adjust the temperature and humidity in the circulating system. The hot air circulation system makes full use of the waste heat to improve the thermal efficiency. It is suitable for drying granular materials which are not easy to dry evenly, adhere to each other easily and need to be fully stirred in the drying process, especially for the drying of Chinese medicine small honey mixed pill, honey-water mixed pill and water mixed pill.



产品结构：

该设备主要由转筒、传动机构、风室、鼓风机、加热器、布袋除尘器（旋风分离器）、空气过滤器、电气控制系统、温湿度检测系统等部分构成。

Product structure:

The equipment is mainly composed of rotary drum, transmission mechanism, air chamber, blower, heater, bag filter (cyclone separator), air filter, electrical control system, temperature and humidity transmitter and etc.

性能及特点：

- 能够设定适宜的干燥条件。可任意设定干燥各阶段的温度、湿度，确保获得理想的干燥产品。
- 装置小、处理量大。用通风的方式送入大量的热风，转筒容积利用率（物料装量）达到20-30%。
- 转筒的转动，使物料在运动状态下进行干燥，受热均匀，干燥速度快，物料形状完整，成品率高。属于一种热传导型干燥方式，只要转筒内有充足的热量，干燥效率就会很高，同时干燥质量稳定。
- 结构简单，维护、管理容易，方便在线清洗。
- 运行中最大限度地利用余热，节能环保。

Performance and characteristics:

- Be able to set suitable drying conditions. The temperature and humidity of each drying stage can be set arbitrarily, so the ideal drying products can be obtained.
- Small equipment with large capacity. A large amount of hot air is sent in by ventilation, and the volume utilization ratio (material loading) of the rotary drum reaches 20-30%.
- Due to the rotation of the drum, the material is dried in the moving state, with uniform heating, fast drying speed, complete material shape and high yield. Especially for materials that need to be dried for a long time, the effect is obvious. In addition, due to the large air supply, even if the temperature is low, it can be dried efficiently.
- Simple structure, easy maintenance and management, convenient for online cleaning.
- Maximize the use of waste heat in operation, energy saving and environmental protection.

智能高效真空干燥机

Multi-function vacuum dryer

主要用途：

智能高效真空干燥机是一种将真空技术与热能置换技术相结合的高真空新型智能干燥设备。适用于热敏性物料、易分解易氧化物料、含糖量高、易溢出、易起泡浸膏类物料。具有自动化程度高、干燥温度低、速度快、温度均匀、无物料溢出、产品品质高、无污染的优点。可满足成分复杂物品的快速干燥，广泛应用于制药、食品、化工及科研等行业对浸膏、药丸、果蔬、饮片的干燥。

Main purpose:

Intelligent high efficiency vacuum dryer is a new type of high vacuum intelligent drying equipment which combines vacuum technology and heat energy replacement technology. Suitable for heat sensitive materials, easy to decompose and oxidize materials, high sugar content, easy to overflow, easy to foam extraction materials. It has the advantages of high automation, low drying temperature, high speed, uniform temperature, no material overflow, high product quality and no pollution. It is widely used in pharmaceutical, food, chemical and scientific research industries.

性能及特点：

- 整机设计与制造符合GMP要求，为卧式矩形夹套结构，箱内采用优质S30408不锈钢容器专用材料，内部镜面处理，易清洗、抗腐蚀，符合压力容器质量安全标准，外板材质为304拉丝不锈钢。
- 密封门采用自动升降系统，压缩空气反密封，并装有安全联锁装置，双门互锁装置。安全可靠，操作简单方便，能严格隔离有菌区和无菌区，防止区间交叉污染。
- 干燥车、干燥板层采用华圆最新专利技术，温度控制精准、温度分布均匀、温度提升速度快。大大缩短了干燥周期，节能降耗。
- 空间利用最大化，全套设计均采用工艺自动化、智能化、管道化。同时设备兼具中药粉剂灭菌、脉动真空灭菌及低温灭菌等功能，真正实现一机多用。其中主体由夹套、壳体、门体组成，在保障安全性的同时大大提升其加热效能及热传导效率。
- 对药品、食品和生物制品能起到消毒灭菌作用，减少物料染菌的机会及抑制某些细菌的生长，干燥、杀菌一次完成。
- 脉冲系统主要由气动阀及单向阀组成。定时定量通过过滤器给干燥室内补偿洁净空气，提高蒸发出来的水份快速由真空泵抽出，提高了干燥效率。
- 设备采用PLC智能分程控制系统，考虑到不同物料的发泡程度不一样，可自行设定脉冲系统的循环延时及喷气时间。
- 设有独立的CIP在线清洗装置，箱内清洗烘干灭菌可同时进行。

Performance and characteristics:

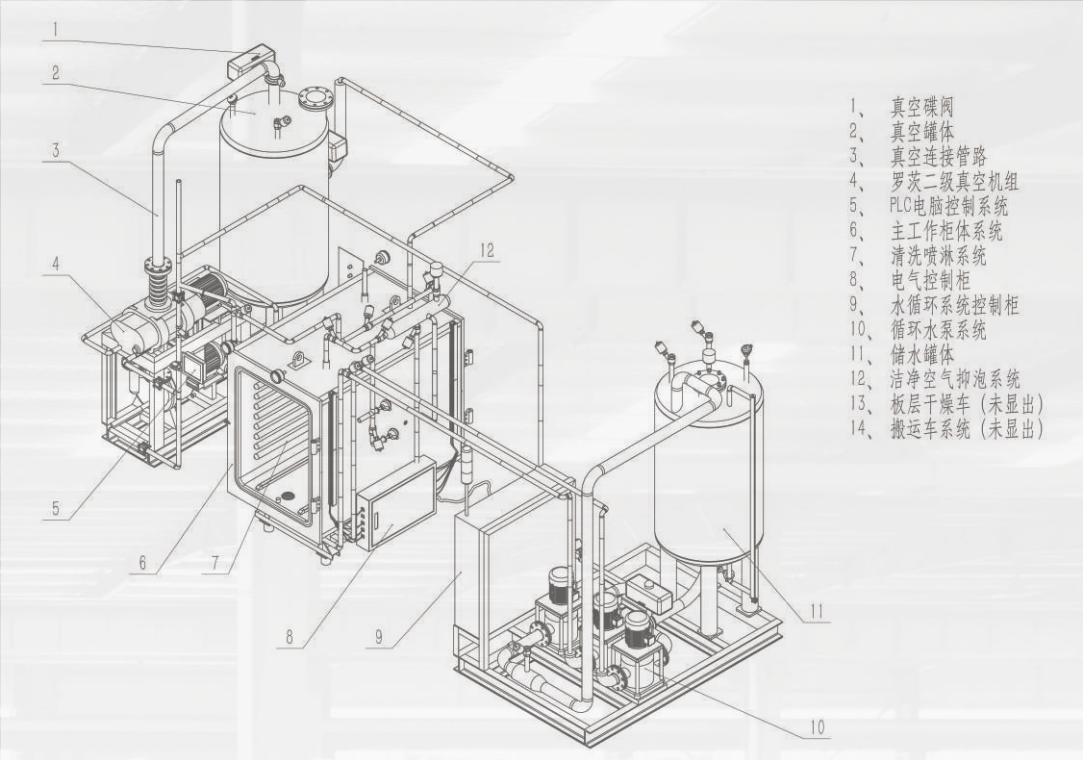
- The whole machine is designed and manufactured in accordance with GMP requirements. It is a horizontal rectangular jacket structure. The box is made of high-quality S30408 stainless steel container special materials, with internal mirror treatment, easy cleaning and corrosion resistance. It meets the quality and safety standards of pressure vessels. The outer plate is made of 304 brushed stainless steel.
- The sealing door adopts the automatic lifting system, the compressed air is back sealed, and is equipped with the safety interlock device and the double door interlock device. It is safe and reliable, easy to operate, and can strictly isolate the bacterial area and sterile area to prevent cross contamination.
- The dryer and drying plate adopt the latest patented technology of Huayuan, with precise temperature control, uniform temperature distribution and fast temperature rise. Greatly shorten the drying cycle, energy saving and consumption reduction.
- Maximize the use of space. The whole design adopts process automation, intelligence and pipeline. At the same time, the equipment has the functions of traditional Chinese medicine powder sterilization, pulsating vacuum sterilization and low-temperature sterilization, so as to realize the multi-purpose of one machine. The main body is composed of jacket, shell and door body, which greatly improves the heating efficiency and heat conduction while ensuring the safety.
- It can disinfect and sterilize drugs, food and biological products, reduce the chance of material contamination and inhibit the growth of some bacteria, and complete drying and sterilization once.
- The pulse system is mainly composed of pneumatic valve and one-way valve. The filter is used to compensate the clean air in the drying room regularly and quantitatively, so that the evaporated water can be quickly pumped out by the vacuum pump, and the drying efficiency can be improved.
- The equipment adopts PLC intelligent split control system. Considering the different foaming degree of different materials, the cycle delay and air-jet time of the pulse system can be set by yourself.
- Equipped with independent CIP online cleaning device, the cleaning, drying and sterilization in the box are carried out at the same time.

产品结构：

- 设备由专用干燥车、干燥板层、干燥物料盘、主体、高真空系统、供热系统、抑泡系统、空气过滤装置、控制管路等系统组成。
- 智能设高备效真空干燥机比传统设备效率提高2-10倍，并解决了中药浸膏干燥设备能耗高的问题，比传统设备生产成本降低50%以上。

Product structure:

- The equipment is composed of special drying car, drying plate layer, drying material plate, main body, high vacuum system, heating system, foam suppression system, air filter device, control pipeline and other systems.
- The efficiency of the intelligent high efficiency vacuum dryer is 2-10 times higher than that of the traditional equipment, and the problem of high energy consumption of the traditional Chinese medicine extract drying equipment is solved, and the production cost of the traditional equipment is reduced by more than 50%.



GDM型带式干燥机

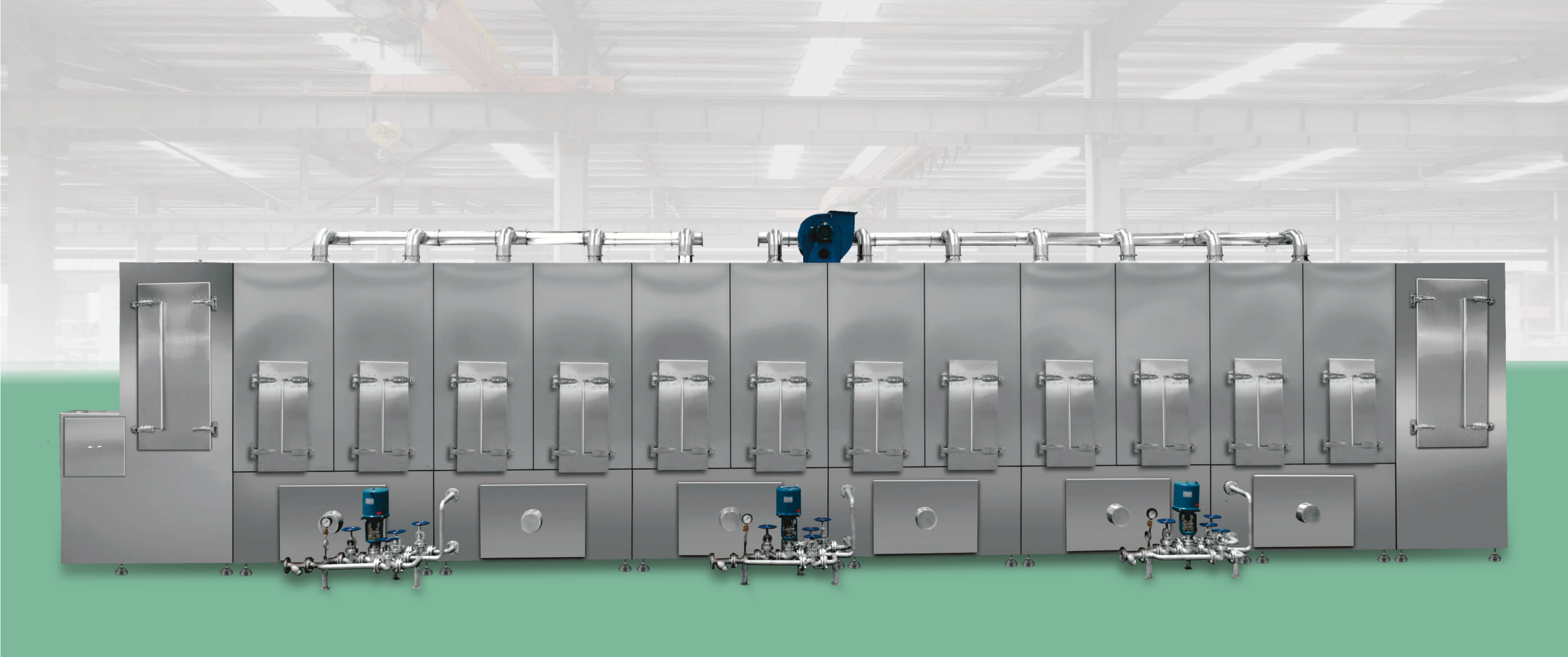
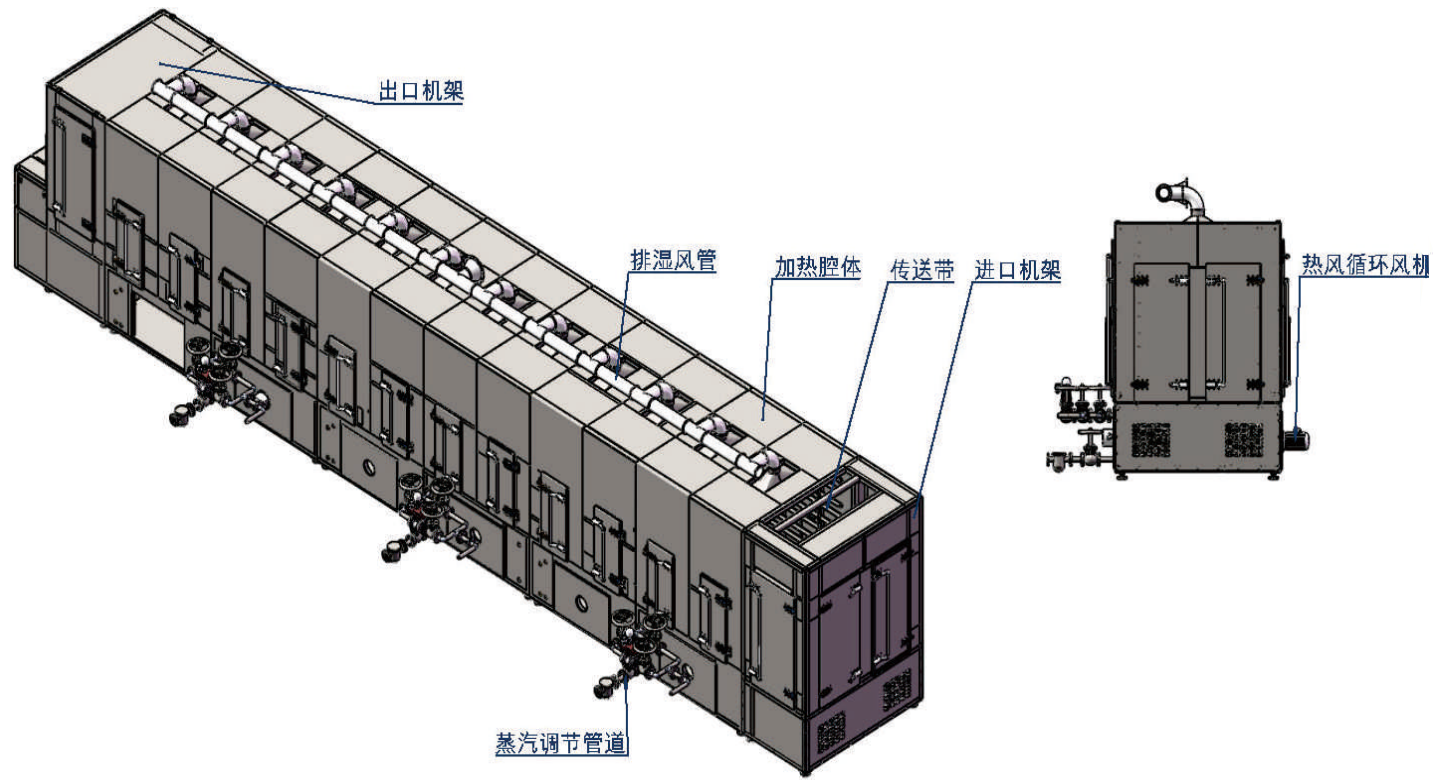
GDM belt dryer

主要用途：

由布料器将物料均匀地铺设在四氟或304不锈钢网带上，由传动装置拖动，在干燥腔内移动。干燥腔由多个单元组成（根据客户产量需求设计），每个单元热风独立循环，湿气由顶部排湿管道排出。底部及顶部加热腔、热交换器和热循环风机组将蒸汽热能转换成热风，通过热循环风机将热风形成内循环。干燥室由上、下两部分干燥腔体组成，上部为初干燥室，下部为终干燥室。净化空气自设备底部进风口经底部加热腔加热，与物料进行热交换后，由风机向上送入终干燥室。之后热风进入设备顶部加热腔经二次加热后的热风，由风机向下送入初干燥室，与物料进行热交换。热交换完成后附带水分的热风由顶部抽湿风机排出，实现了真正意义上的热风内循环和二次利用。主要用于中药丸、中药原材料（根、茎、叶、条状）、饮片、农副产品以及保健品原材料的干燥连续生产。

Main purpose:

The material is evenly laid on the PTFE or 304 stainless steel mesh belt by the distributor and moved in the drying chamber by the driving device. The drying chamber is composed of several units (designed according to the production demand of customers), each unit has an independent hot air circulation, and the moisture is discharged from the top moisture discharge pipe. The bottom and top heating chambers, heat exchangers and thermal circulation fans convert steam heat energy into hot air, and the hot air forms internal circulation through the thermal circulation fans. The drying chamber is composed of upper and lower drying chambers. The upper part is the primary drying chamber and the lower part is the final drying chamber. The purified air is heated from the air inlet at the bottom of the equipment through the heating chamber at the bottom, and after heat exchange with the materials, it is sent upward to the final drying chamber by the fan. After that, the hot air enters the heating chamber on the top of the equipment, and the hot air after secondary heating is sent down to the primary drying chamber by the fan for heat exchange with the materials. After the completion of heat exchange, the hot air with moisture is discharged by the top dehumidification fan, which realizes the real hot air internal circulation and secondary utilization. It is mainly used for drying and continuous production of traditional Chinese medicine pills, raw materials of traditional Chinese medicine (root, stem, leaf, strip), decoction pieces, agricultural and sideline products and raw materials of health care products.



产品结构：

设备主要由进料机架、加热箱、出料机架、传动部分、热交换器、循环风机，蒸汽控制部分组成。

Product structure:

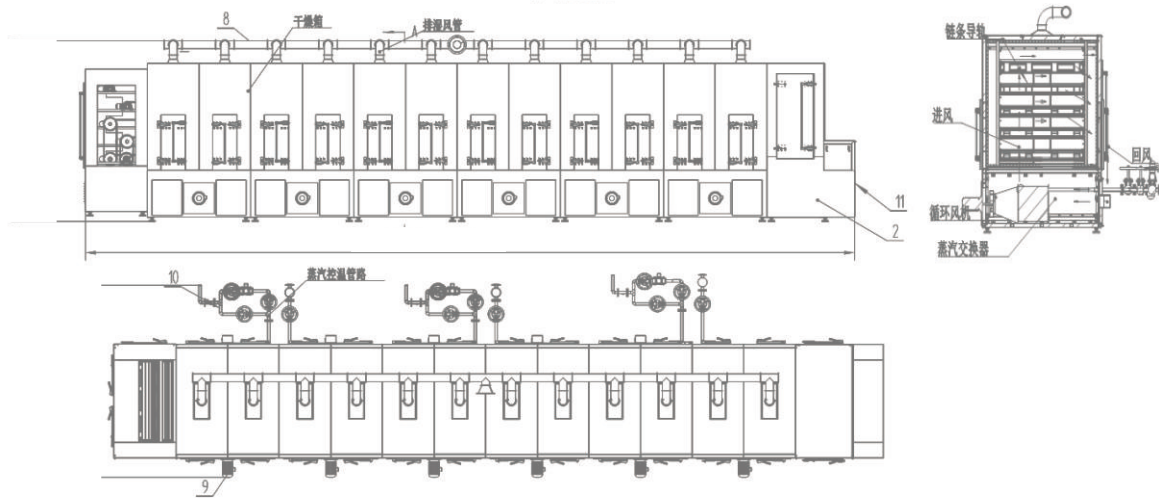
The equipment is mainly composed of feed frame, heating box, discharge frame, transmission part, heat exchanger, circulating fan and steam control part.

性能及特点：

- 该系列干燥机具有干燥速度快、蒸发强度高、脱水效果佳等特点。绿色节能，生产效率高。
- 干燥温度、循环风机频率、传送速度，排湿风机频率参数可根据工艺实现调节设置。可实现参数设置保存，根据工艺可调用不同的参数设置。
- 该设备适合与前后端设备连线，实现高效联动生产。

Performance and characteristics:

- This series of dryer has the characteristics of fast drying speed, high evaporation intensity and good dehydration effect. Green production,energy saving and high production efficiency.
- The drying temperature, circulating fan frequency, transmission speed and frequency parameters of the exhaust fan can be adjusted and set according to the process. Parameter setting can be saved, and different parameter settings can be called according to the process.
- The equipment is suitable for connecting with front and rear equipment to realize efficient linkage production.



915MHz大功率微波干燥设备

915MHz high-power microwave drying machine

主要用途：

在工业应用中，915MHz微波比2450MHz微波的穿透能力强，且同样具有高效性、节能性、易控性等优势，避免了传统加热方式由于介质热传导造成的时间浪费，降低能量损耗。因此作为一种高效节能、环保清洁的热工处理技术逐渐被应用到了医药、食品、农副产品、木材、纸张、烟草、化工等多种物料的干燥、杀菌、解冻、膨化、催化等工艺处理。

产品结构：

设备主要由微波加热器、微波抑制器、排风排湿、监控系统、机械传输机构等部分组成。

Main purpose:

In industrial application, 915MHz microwave has stronger penetration ability than 2450MHz Microwave, and it also has the advantages of high efficiency, energy saving, easy control, etc., which saves the time and energy loss caused by traditional heating method due to medium heat conduction. Therefore, as an efficient, energy-saving, environmental friendly and clean thermal treatment technology, it is gradually applied to the drying, sterilization, thawing, expansion, catalysis and other processes of various materials such as medicine, food, agricultural and sideline products, wood, paper, tobacco, chemical industry, etc.

Product structure:

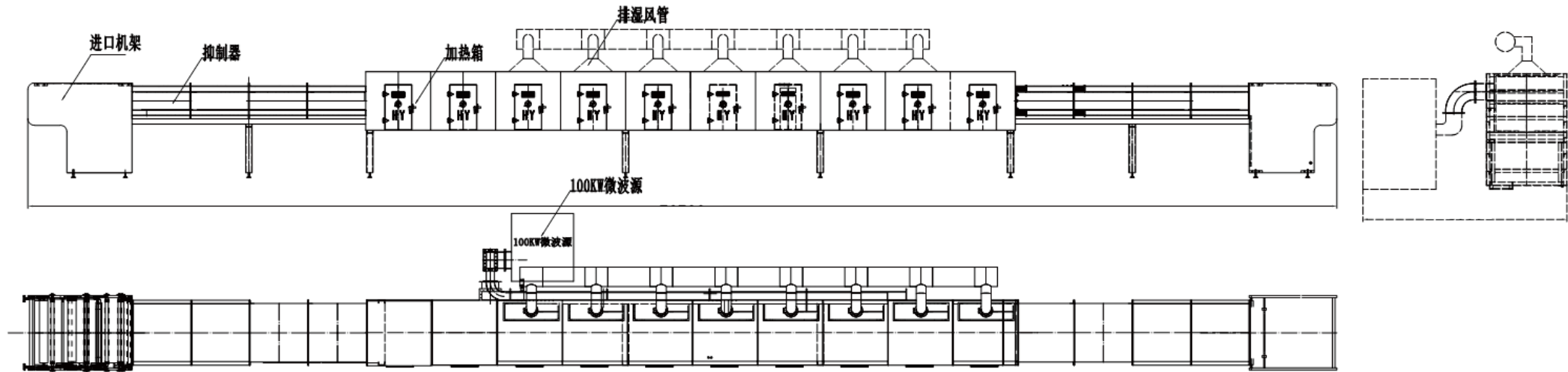
The equipment is mainly composed of microwave source, microwave suppressor, exhaust air and humidity system, monitoring system, mechanical transmission mechanism, etc.

性能及特点：

- 穿透力更强，相比2450MHz提高了近3倍。
- 1只磁控管（75Kw/100Kw），维护更简单。
- 效能转换率>80%，更节能、环保。
- 2450MHz为商业级应用频率，915MHz为工业级应用频率。
- 功率连续可调，操作灵活方便。
- 设有微波联锁装置、高压连锁装置，并具有检测功能、保护功能，安全可靠。
- 整机采用模块化设计，清洗、装拆、维修均很方便。

Performance and characteristics:

- Stronger penetration, nearly three times higher than 2450MHz;
- One magnetron (30kw/75kw/100kw), which is easier to maintain;
- Efficiency conversion rate>80%, more energy saving and environmental protection;
- 2450MHz is the commercial application frequency, and 915MHz is the industrial application frequency;
- Continuously adjustable power, 1kw power step, flexible and convenient operation;
- It is equipped with microwave interlocking device and high-voltage interlocking device, with detection function and protection function, safe and reliable.
- The whole machine adopts modular design, which is convenient for cleaning, installation and maintenance.



HWZ系列箱式真空微波干燥设备

HWZ series vacuum microwave drying equipment



主要用途:

微波真空干燥设备是微波能技术与真空技术相结合的一种新型微波能应用设备，集电子、真空、机械、热力等学科为一体，兼备了微波与真空干燥的一系列优点，克服了常规干燥周期长、效率低的缺点。具有自动化程度高、处理温度低、速度快、均匀性好、品质高、污染小的优点。适用于热敏性物料，易分解易氧化物料的干燥，尤其适用于中药浸膏、中药丸、药粉、食品、农副产品以及精细化工等行业。

性能及特点:

- 该设备采用料盘旋转的结构方式，料盘始终保持动态旋转状态，避免了物料干燥不均匀，同时，料盘始终处于水平状态，物料不会流出或洒落。
- 设备配置真空系统。干燥是在真空状态下进行的，降低了水（或其它液体）的蒸发温度，加快了干燥速度。对于含有有机溶剂物料的干燥，增加了安全性。也适合易氧化物料的干燥。干燥温度低，适合一些热敏性物料的干燥。
- 设备配有温度自动控制系统。可根据物料的性质设定干燥温度，微波功率自动调整，使物料温度保持相对的恒定。
- 设备配有真空度与微波开关自锁系统。为防止有些物料在有氧环境下工作有安全隐患，设备设定一定的真空度值，当真空度达到设定值时微波才能启动；或者工作过程中真空度降低到设定值时，设备自动关闭微波电源。
- 用波导控制微波发射是设计微波的核心技术，它可以使微波使用寿命延长，同时达到干燥物料的均匀性能得以保证，这种波导装置我公司已申请国家专利。
- 设备设计自动化程度高，采用PLC控制，触摸屏作为人机操作界面，该设备控制装置已申请国家发明专利。

产品结构:

设备主要由微波加热系统、真空系统、温控系统、料架系统、安全保护系统及操作系统等组成。

Main purpose:

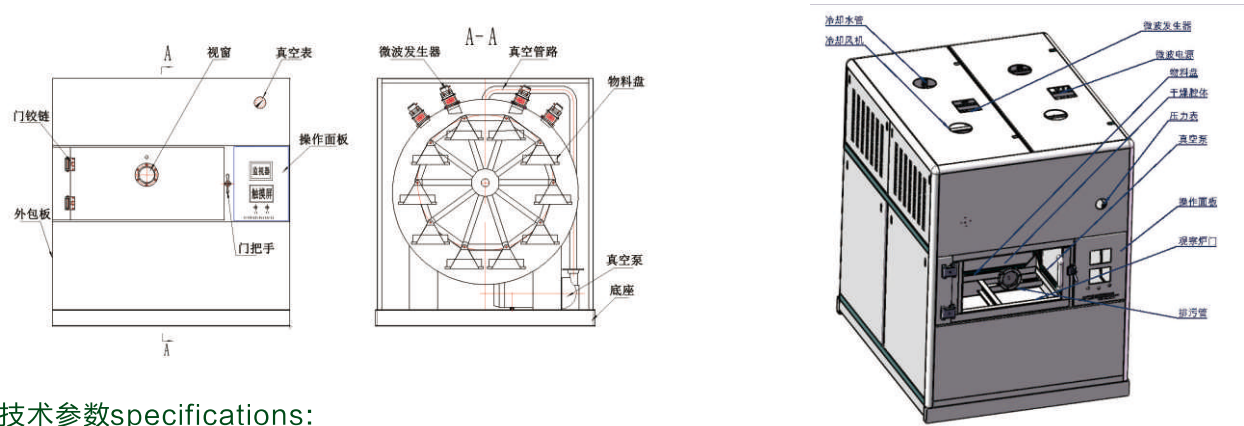
Microwave vacuum drying equipment is a new type of microwave energy application equipment which combines microwave energy technology and vacuum technology. It integrates electronic, vacuum, mechanical, thermal and other disciplines. It combines a series of advantages of microwave and vacuum drying, and overcomes the disadvantages of long drying cycle and low efficiency of conventional drying. It has the advantages of high automation, low processing temperature, high speed, good uniformity, high quality and small pollution. It is suitable for the drying of heat sensitive materials and easily decomposed and oxidized materials, especially for Chinese traditional medicine extraction, Chinese traditional medicine pill, powder, food, agricultural and sideline products and fine chemical industry.

Performance and characteristic:

- The equipment adopts the structure of material tray rotation, which keeps the dynamic rotation state all the time, avoiding the uneven drying of materials. At the same time, the material tray is always in the horizontal state, and the materials will not flow out or fall.
- The equipment is equipped with a vacuum system. Drying is carried out in vacuum, which reduces the evaporation temperature of water (or other liquids) and accelerates the drying speed. For the drying of materials containing organic solvents, the safety is increased. It is also suitable for drying easily oxidized materials. Low drying temperature, suitable for drying some heat sensitive materials.
- The equipment is equipped with automatic temperature control system. The drying temperature can be set according to the nature of the material, and the microwave power can be adjusted automatically to keep the material temperature relatively constant.
- The equipment is equipped with vacuum degree and microwave switch self-locking system. In order to prevent some materials from potential safety hazards when working in the aerobic environment, the equipment sets a certain vacuum value, when the vacuum reaches the set value, the microwave can be started; or when the vacuum drops to the set value during the working process, the equipment automatically turns off the microwave power supply.
- Using waveguide to control microwave emission is the core technology of microwave design. It can prolong the service life of microwave and ensure the uniform performance of dry materials. Our company has applied for a national patent for this waveguide device.
- The equipment is designed with high degree of automation, PLC control and touch screen as human-machine interface. The control device of the equipment has applied for national invention patent.

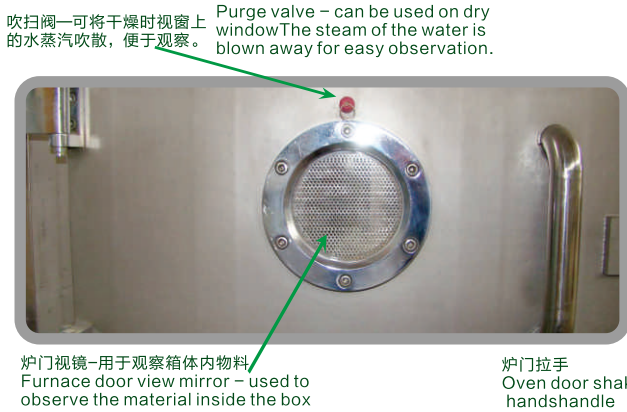
Product structure:

The equipment is mainly composed of microwave heating system, vacuum system, temperature control system, material rack system, safety protection system and operation system.

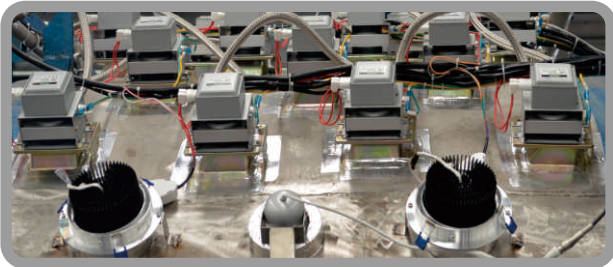


技术参数specifications:

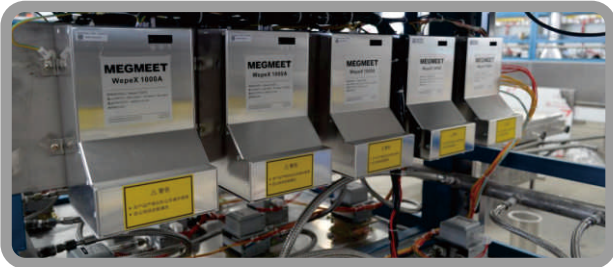
设备型号	HWZ-5B	HWZ-10B	HWZ-15B	HWZ-20B	HWZ-25B	HWZ-30B
微波功率KW	5	10	15	20	25	30
微波频率MHz	2450	2450	2450	2450	2450	2450
电源电压V	380 ± 10%	380 ± 10%	380 ± 10%	380 ± 10%	380 ± 10%	380 ± 10%
辅料面积m²	0.75	0.75	2.25	2.25	3.45	3.45
灭菌能力Kg/KW · h			10-20			
脱水能力Kg/KW · h			0.8-1.2			
外形尺寸mm (长×宽×高) 可调	950 × 650 × 1700	1580 × 1270 × 1880	1780 × 1980 × 2140	1780 × 1980 × 2140	1880 × 2400 × 2450	1880 × 2400 × 2450



装于真空微波设备上的物料盘—采用聚苯乙烯材质，完全符合医用标准。
The material tray installed on the vacuum microwave equipment is made of polystyrene, which meets the medical standard completely



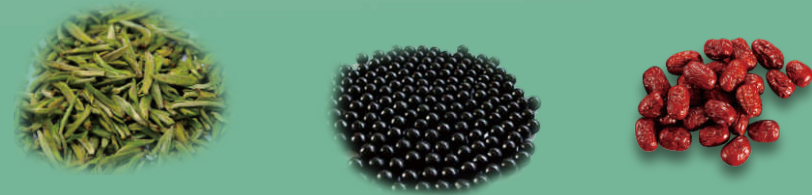
微波发生器Microwave generator



微波电源Microwave power

GWM系列多层隧道式微波干燥灭菌机

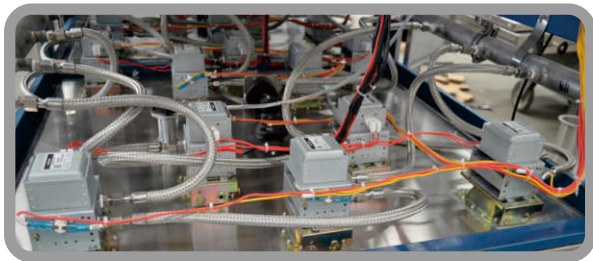
GWM series multi-layer tunnel type microwave drying and sterilizing machine



微波电源Microwave power



进料斗The hopper



微波发生器Microwave generator



传送带自动纠偏装置Automatic belt rectifying device

主要用途:

隧道式微波干燥机是一种新型的干燥设备，生产效率高、运行成本低，更是一种高效环保的节能设备，在干燥的同时还有杀菌作用，是中药丸剂、食品、农副产品等生产流水线上不可缺少的核心设备之一。设备可配三层或五层传送结构，确保干燥效果更佳，同时与同等功率/产量的干燥设备相比，占地面积小，人力使用量减少80%以上，效率成倍提高。在木材、纸张、烟草、化工、建材等领域也得到广泛应用。

主要用途:

- 设备的主要部件均采用SUS304不锈钢制造，符合制药设备GMP标准，整机采用模块化设计，易清洗，操作方便。
- 非常适合与前后端设备连线，实现高效联动生产。
- 微波加热器由若干个单元加热箱组成，每个单元由若干个磁控管组合工作，其特点是功率选择灵活，操作简便。
- 领先的波导技术控制波峰波谷分布，使微波加热更均匀。
- 传输带采用聚四氟乙烯材质，安全无毒，无级变频自动调速，运行稳定。
- PLC自动程序控制系统，实现自动监测报警、数据存储调用。
- 具有炉门开启自动保护功能，误开炉门时，设备自动切断微波电源，或者当炉门没有关好，不能启动微波电源。
- 整机采用模块化设计，清洗、装拆、检修均很方便。

产品结构:

设备主要由微波加热器、微波发生器、微波抑制器、机械传输机构、抽风排湿系统及自动化控制系统等组成。

Product structure:

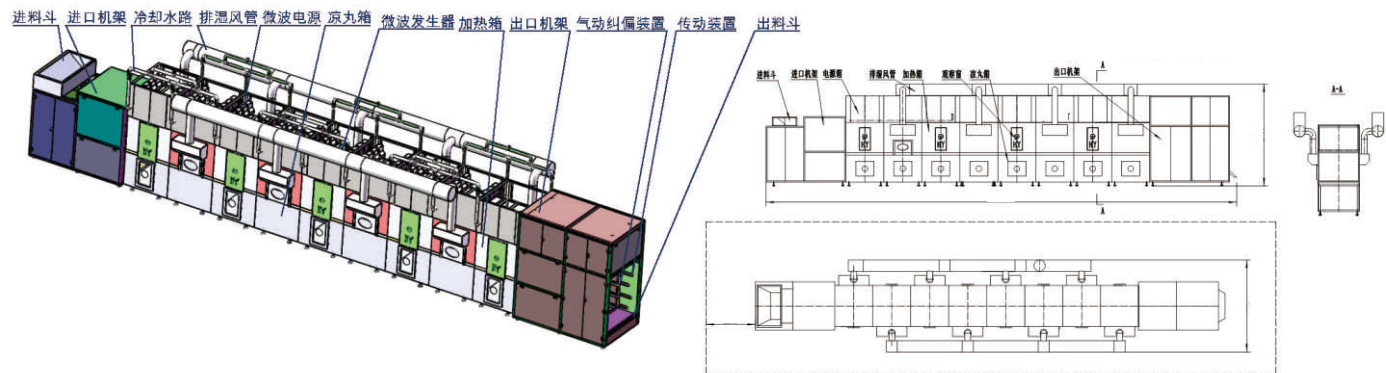
The equipment is mainly composed of microwave heater, microwave generator, microwave suppressor, mechanical transmission mechanism, exhaust and humidity system and automatic control system.

Main purpose:

The tunnel type microwave dryer is a new type of drying equipment with high production efficiency and low operation cost. It is also an energy-saving equipment with high efficiency and environmental protection. While drying, it also has the function of sterilization. It is one of the indispensable core equipment in the production line of Chinese traditional medicine pills, food, agricultural and sideline products. The equipment can be equipped with three-layer or five layer transmission structure to ensure better drying effect. At the same time, compared with the drying equipment with the same power or output, the floor area is small, the use of manpower is reduced by more than 80%, and the efficiency is multiplied. It is also widely used in wood, paper, tobacco, chemical industry, building materials and other fields.

Performance and characteristics:

- The main parts of the equipment are made of SS304 stainless steel, which conforms to the GMP standard of pharmaceutical equipment. The whole machine is modular design, easy to clean and easy to operate.
- It is very suitable for connecting with front and rear equipment to realize efficient linkage production.
- The microwave heater is composed of several heating boxes, each unit is composed of several magnetrons, which is characterized by flexible power selection and simple operation.
- Advanced waveguide technology controls the peak and valley distribution, making microwave heating more uniform.
- The transmission belt is made of polytetrafluoroethylene, safe and non-toxic, stepless frequency conversion and automatic speed regulation, stable operation.
- PLC automatic program control system realizes automatic monitoring alarm and data storage and calling.
- It has the automatic protection function of furnace door opening. When the furnace door is opened by mistake, the equipment will automatically cut off the microwave power supply, or when the furnace door is not closed properly, the microwave power supply cannot be started.
- The whole machine adopts modular design, which is convenient for cleaning, installation and maintenance.



HYG型热泵干燥设备

HYG series heat pump drying equipment



性能及特点:

- 安装、移动方便，占地面积少，室内外均可安装。
- 只需消耗少量的电能，就可以在空气中吸收大量的热量，耗电量仅为加热器的1/3 - 1/4；同燃煤、油、气烘干设备相比，可节省75%左右的运行费用。
- 无任何的燃烧物及排放物，是一种可持续发展的环保型产品。
- 整个系统的运行无传统干燥器(燃油、燃气或电加热)中可能存在的易燃、易爆、中毒、短路等危险，是一种安全可靠的全封闭干燥系统。
- 工艺技术成熟，性能稳定、可靠，全自动免人工操作，智能化控制，使用寿命长，维护费用低。
- 自动化、智能化程度高，采用自动控温装置，24小时连续作业。
- 设有独立的CIP在线清洗装置，箱内清洗烘干灭菌可同时进行。

Performance and characteristics:

- Easy to install and move, less floor space, indoor and outdoor installation.
- A large amount of heat can be absorbed in the air with only a small amount of electric energy consumption, which is only 1/3-1/4 of that of the heater; compared with coal-fired, oil and gas drying equipment, it can save about 75% of the operating cost.
- No combustion and emissions, it is an environmentally friendly product with sustainable development.
- The operation of the whole system is a safe and reliable fully enclosed drying system, without the possible risks of flammability, explosion, poisoning, short circuit and so on in the traditional dryer (fuel oil, gas or electric heating).
- Mature technology, stable and reliable performance, fully automatic manual free, intelligent control, long service life and low maintenance cost.
- High degree of automation and intelligence, automatic temperature control device, 24-hour continuous operation.
- Equipped with independent CIP online cleaning device, the cleaning, drying and sterilization in the box are carried out at the same time.

产品结构:

设备主要由烘干房、热泵机组、专用送风风机、循环风道、液面控制器、排湿系统等组成。

Product structure:

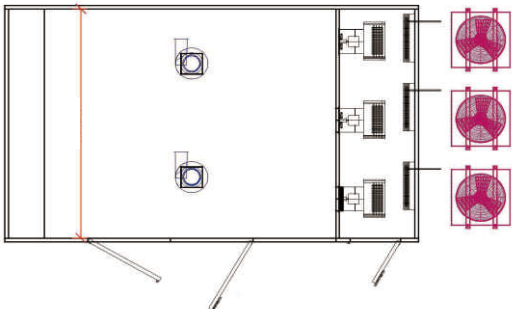
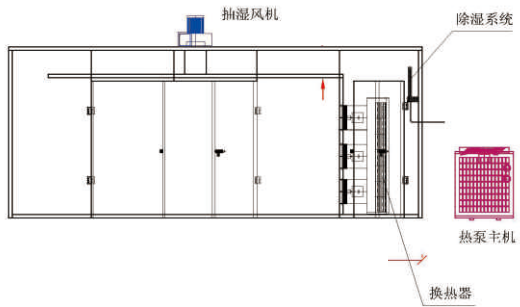
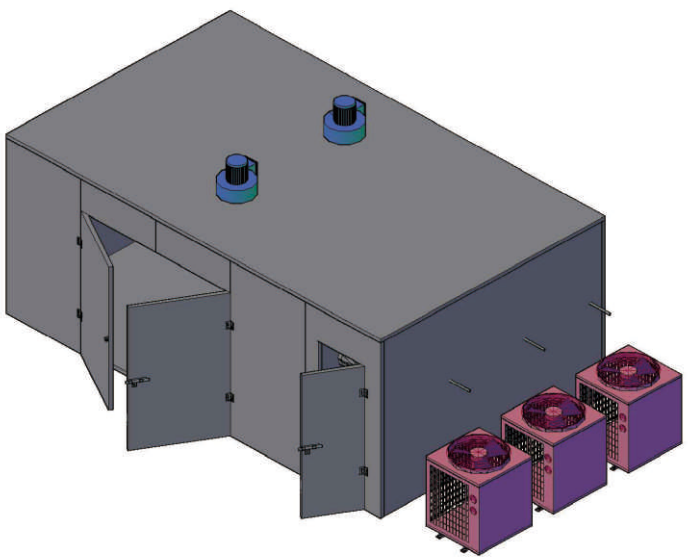
The equipment is mainly composed of main machine, special air supply fan, circulation air duct, liquid level controller, moisture removal system, etc.

主要用途:

热泵干燥利用逆卡诺原理，吸收室外空气的热量并将其转移到室内，烘干房的温度得以提高，配合相应的设备以实现物料的干燥。在烘干的过程中，高温热泵主机对烘房进行循环加热。当烘房内的温度达到所设的温度时主机自动停止工作，当烘房内的温度低于所设定的温度时，热泵主机自动开始加热。热泵干燥设备合理利用热量，提高了干燥效率，降低了成本。适用范围广，在医药、食品、烟草、农产品、纸制品、皮革、木材、化工等行业均有应用。

Main purpose:

Heat pump drying equipment uses the inverse Carnot principle to absorb the heat of the outdoor air and transfer it to the indoor, the temperature of the drying room can be increased, with the corresponding equipment to achieve the drying of materials. In the drying process, the high temperature heat pump host circulates heating to the drying room. When the temperature in the drying room reaches the set temperature, the main engine automatically stops working. Otherwise when it is lower than the set temperature, the main engine of the heat pump automatically starts heating. The heat pump drying equipment uses heat reasonably, improves the drying efficiency and reduces the cost. It is widely used in medicine, food, tobacco, agricultural products, paper products, leather, wood, chemical and other industries.



复合型干燥设备
Compound drying equipment



主要用途：

本设备为鲜花干燥、提取液收集而订制。利用微波与热风组合的干燥方式，特点是产量大、效率高、干燥后复水性好、不变色、干燥均匀。微波对物料有一定的破壁作用，且升温快，温度范围易控制，既可以保护花的色、形、味，也可以延长花的质保期，保证在正常储存时不会变色。

Main purpose:

The equipment is customized for drying flowers and collecting extracts. The combination of microwave and hot air drying is characterized by large output, high efficiency, good rehydration after drying, no discoloration and even drying. Microwave can break the wall of the material to a certain extent, and the temperature range is easy to control. It can not only protect the color, shape and taste of flowers, but also extend the quality assurance period of flowers, so as to ensure that they will not change color during normal storage.

产品结构：

设备主要由布料装置、微波杀青部分、微波热风干燥部分、冷凝回收部分组成。

性能及特点：

设备采用智能化操作，所有的控制部分全部在PLC控制面板上显示，只需输入相应的参数即可。监控部分采用彩色摄像头，能清楚地监视器上观察到腔体内物料的运行情况。此设备为非标设备，可根据客户的需求量身定制。

Performance and characteristics:

Intelligent operation is adopted for the equipment, all control parts are displayed on PLC control panel, and only relevant parameters need to be input. The monitoring part adopts color camera, which can clearly observe the operation of materials in the cavity on the monitor. This equipment is non-standard equipment, can be customized according to the needs of customers.

Product structure:

The equipment is mainly composed of materials loading and paving part, microwave inactivation part, microwave hot air drying part and condensation recovery part.

