MINJIE

LOW-TEMPERATURE DRYING & EVAPORATION
POWDER STERILIZATION

www.shmjx.com
企业介绍

Enterprise Introduction

 Founded in 1998, Shanghai Mijie Machinery Co., Ltd. is a company specialized in research, manufacturing, sales of pharmaceuticals, foodstuff, chemical and biological machinery. Located in Gaoqiao Industrial Park, Pinghu District, Shanghai, China, Shanghai Mijie covers an area of 20,000 m² with 22,800 m² of building area. The total assets reach RMB 30 million. More than 150 staff including 5 senior engineers, 22 engineers and 24 senior and medium technicians in Shanghai Mijie engage in research, manufacturing and sales of different drying equipment, low temperature vacuum impregnation and sterilization equipment. Mijie has 5 patents of invention, 10 patents of utility model. The developed vacuum bell dryer gained Shanghai High-tech Achievements certificate, Shanghai Traction Service Enterprise Federation, Shanghai Science and Technology Award, and so on.

 Mijie's history reflects its corporate strategy of "being expert in drying, creating science and technology shining machines", firmly based on the target of our efforts and our innovative source. Listening carefully to the customer, learning deeply advanced foreign technology, working hard to overcome technical and difficulties of equipment in pharmaceutical biology, food, health care, fine chemical and so on industries. Mijie has developed and technology innovation affirmation of domestic and foreign customer. To ensure product quality stability, Mijie has invested over 15 million RMB on importing advanced equipment. Automatic oven oven, automatic oven, automatic kitchen, automatic water filter, automatic water purifier, CMC machine and so on. Mijie has developed 8 series products with self-owned intellectual property rights, more than 60 models vacuum bell dryer for liquid products, vacuum bell dryer for powder products, super low temperature evaporator, sterilization equipment, etc. Mijie has gained ISO9001 quality management system certification and SSQCE certification.

 Honesty business model to the world. To ensure each client can choose suitable equipment from us, we set up bell drying temperature, concentration and sterilization equipment test platform and provide free technical service for clients who are interested in our products. Now more than 1000 domestic companies every year come to Mijie for investigation and test. Our clients' satisfied comments for our machine is 100%.

 Until now, Mijie's machine has been sold to over 20 provinces in China, over 20 countries around the world. Mijie maintains long-term cooperation with domestic and overseas well-known enterprises such as Biogen, Shanghai Pharma, Tasty Group, Condea Group, Sundew Group, Bill Group, Quantum Hitech, Dupont Group from America, DM Partners from South Korea, Kermes from Switzerland. Excellence, innovation in the development of Mijie purpose, we will be more exploited technology to welcome friends at home and abroad.

 Barrened by today's technology, preparing a bright tomorrow, in the high-tech developing era, Shanghai Mijie is shaping people's vision. For Mijie's long-term growing strategy aspirations, relying on "developing innovative and high-grade, keeping developing" policy, Mijie strives to reach 5.5 billion sales amount for least 5 years. On the constructing Mijie dream journey, Mijie people pursued with confidence and wrote a new chapter for enterprise development.

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 中国真空带式干燥机的行业开拓者和领跑者

 PIONEER & LEADER OF DRYER INDUSTRY
**部分专利荣誉**

SOME PATENTS & HONORS

1998 Year
- Oct. Shanghai Minjie Machinery Co., Ltd was founded
- Dec. Minjie developed China's first vacuum belt dryer, named vacuum belt dryer for 4500mm

2000 Year
- Dec. Minjie developed China's first vacuum laminating machine, named vacuum belt dryer for 4500mm

2002 Year
- Dec. Vacuum belt dryer for liquid won national patent certificate

2003 Year
- Mar. Shanghai Minjie Machinery Co., Ltd purchased vacuum belt dryer from us, our first vacuum belt dryer entered market
- Sep. Per client's requirements, we developed vacuum belt dryer for powder and particle, which won wide attention and acclaim

2006 Year
- Feb. Minjie co-founded China's first vacuum belt dryer manufacturing company and received national patent

2008 Year
- Dec. Technically improved vacuum belt dryer and notified drying technique won national patents again

2009 Year
- Mar. Minjie ||| Company and Minjie ||| Company signed cooperation agreement, establishing China's first vacuum belt dryer manufacturing company internationally
- Nov. Minjie ||| Machinery & Minjia ||| Co., Ltd purchased our vacuum belt dryer, China exported first vacuum belt dryer by Minjie

2010 Year
- Feb. Minjie ||| Machinery developed China's first vacuum belt dryer manufacturing company and signed cooperation agreement, exported 10 sets of vacuum belt dryers to South Korea, China, Vietnam, Thailand, and so on
- Oct. Minjie ||| Machinery developed China's first vacuum belt dryer manufacturing company and signed cooperation agreement, exported 10 sets of vacuum belt dryers to South Korea, China, Vietnam, Thailand, and so on

2011 Year
- Nov. Minjie ||| Machinery developed China's first vacuum belt dryer manufacturing company and signed cooperation agreement, exported 10 sets of vacuum belt dryers to South Korea, China, Vietnam, Thailand, and so on

2013 Year
- Aug. Minjie moved to the new factory in Fengxian Industrial Park

2014 Year
- Nov. Minjie ||| Machinery developed China's first vacuum belt dryer manufacturing company and signed cooperation agreement, exported 10 sets of vacuum belt dryers to South Korea, China, Vietnam, Thailand, and so on

2015 Year
- Oct. Minjie ||| Machinery developed China's first vacuum belt dryer manufacturing company and signed cooperation agreement, exported 10 sets of vacuum belt dryers to South Korea, China, Vietnam, Thailand, and so on

2016 Year
- Mar. Minjie ||| Machinery developed China's first vacuum belt dryer manufacturing company and signed cooperation agreement, exported 10 sets of vacuum belt dryers to South Korea, China, Vietnam, Thailand, and so on

2017 Year
- Nov. Minjie ||| Machinery developed China's first vacuum belt dryer manufacturing company and signed cooperation agreement, exported 10 sets of vacuum belt dryers to South Korea, China, Vietnam, Thailand, and so on

2018 Year
- Nov. Minjie ||| Machinery developed China's first vacuum belt dryer manufacturing company and signed cooperation agreement, exported 10 sets of vacuum belt dryers to South Korea, China, Vietnam, Thailand, and so on

**发展历程**

DEVELOPMENT HISTORY

上世纪九十年代末，在中国的东，一颗民营科技之树悄然诞生。创业者怀揣梦想，以微若的3万元创业启动资

金，在不足几百平方米的破旧小厂房，苦苦探索上海敏杰未来发展的方向……

一枝手绘图册，一幅横竖必赢。 “五加一”、“百果集”描绘精神，创业者用激情描绘了人生，成功开辟了“上海

敏杰”的序幕。

At the end of the 20th century, in China’s East, a private science and technology seedling quietly born. Entrepreneur with his dreams and scanty 30,000 yuan startup capital, explored Shanghai Minjie’s future development direction in a humble small factory with only several dozens of square meters.

A hand-painted drawing, an old machine, "seven days working a week, a day and night working a day", with this hard-working spirit, the entrepreneur lighted his life by enthusiasm, successfully started "Shanghai Minjie".
真空低温液体连续干燥机

VACUUM BELT DRYER FOR LIQUID & PASTE

真空低温液体连续干燥机是一种连续进料，连续出料的真空干燥设备。液体原料通过进料管流进进入干燥箱内，并在适当的真空下将水分蒸发并冷却。通过真空泵负压的方式，使干燥箱内部温度控制在65℃以下，从而避免材料的失重，挥发性物的升华，材质的爆裂等现象。干燥箱内部温度达到90℃时，液体原料的溶剂、挥发物被蒸发，达到干燥的效果。

真空低温液体连续干燥机主要适用于医药行业、食品行业、化工行业等领域。该设备具有干燥效果好、干燥时间短、能耗低、自动化程度高等优点。适用于对热敏性、易氧化、易挥发等物料的干燥处理。

工艺流程

TECHNOLOGICAL PROCESS

设备优点

EQUIPMENT ADVANTAGE

- 低温干燥工艺，适用于各种类型的液体原料。
- 生产过程是真空干燥，能耗低。
- 操作人员无需参与，大大降低了人力成本。
- 干燥温度可调节，使物料在不同温度下均匀干燥。
- 节能环保，符合GMP标准。

适用范围

APPLICATION SCOPE

主要适用于医药行业、食品行业、化工行业等领域。该设备具有干燥效果好、干燥时间短、能耗低、自动化程度高等优点。适用于对热敏性、易氧化、易挥发等物料的干燥处理。

设备型号

EQUIPMENT SPECIFICATION

<table>
<thead>
<tr>
<th>型号</th>
<th>直径</th>
<th>长度</th>
<th>高度</th>
<th>换热面积</th>
<th>换热温度</th>
<th>进料温度</th>
<th>干料含水</th>
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<td>15-25</td>
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</tbody>
</table>

注：如进料原料是液体，温度为冷却温度（乙醇、丙酮、甲醇等），设备蒸发量将大大提升。If the solvent of raw material is organic (ethanol, acetone, methanol etc.), evaporation capacity will rise. Usually, the heat temperature is lower. Evaporation capacity is closely related with drying temperature.
真空低温固体连续干燥机

VACUUM BELT DRYER FOR POWDER & PARTICLE

根据客户产能大小，各真空设备内设配置3-8层设计，通过连续固体进料和布料器，将物料均匀分布到干燥带上，并均匀地分布在干燥器上。由于物料在干燥过程中的不断移动，加速了蒸发速度和时间，同时保证产品在干燥过程中的均匀性。干燥的温度在20-150°C可调，物料从进入干燥机到干燥层出料的时间20-80分钟可调，干燥后的成品无需破碎工艺，可在真空干燥条件下粉碎，避免了粉碎操作，提高了产品的纯度和质量，同时该设备对易潮解的物料，解决了设备对湿度的控制，降低了设备对湿份的控制，降低了能耗和生产成本。

There are 3-11 layers of conveyor belts inside the cylindrical shell, the more the layers, and the larger the capacity. By feeding and distributing evenly, the wet solid material is input continuously, and then distributed evenly on the conveyor belt under vacuum. Motion of the belt extra the materials constantly, which speeds up evaporation. Thus shortens the drying time, and also makes sure homogeneously during drying. The drying temperature and drying time (from feed-in to discharge) are adjustable, 20-150°C (20-80min). If the dried product needs grinding, it can be comminuted under vacuum, no shaft flying appears, which increases products’ yielding and avoid contamination. The dried product is discharged continuously by vacuum discharging and collecting device. Organic solvent in the wet materials can be recycled by our system, removing pollution problem caused by traditional dryers, and saving profit.

工艺流程

TECHNOLOGICAL PROCESS

设备优点

EQUIPMENT ADVANTAGE

- 实现连续真空进料、连续出料
- 实现物料低温干燥、低能耗、易控制
- 干燥工艺温度在20-150°C可调
- 干燥成品是传统干燥工艺的三分之一
- 产品收率达95%以上
- 均衡进料，确保出料均匀
- 降低能耗，节约生产时间
- 配备安全保护装置，保障安全生产
- 配套计算机控制系统，满足GMP要求
- 少量的生产损失和废弃物可再利用
- 调节干燥温度（20-150°C）及干燥时间（25-60min）
- PLC自动控制系统和CIP清洗系统
- GMP标准

适用范围

APPLICATION SCOPE

主要适用于中药、西药、化工等企业，各种固体、结晶体、粉末、粒状、丸剂、片剂等原料，易吸湿、易燃、易爆、易潮解等物料；需要进行各种干燥的产品。

Industries: pharmaceutical, food, chemical, biological. Drying material type: solid, crystal, particle, powder, pills, milk & vegetable slices or chips, leaves, etc.; Some special material: easy oxidation, easy explosion, strong stimulating, high toxicity; Material needing solvent assembling process.

设备型号

EQUIPMENT SPECIFICATION

<table>
<thead>
<tr>
<th>型号</th>
<th>直径</th>
<th>长度</th>
<th>高度</th>
<th>预热面积</th>
<th>加热温度</th>
<th>预热温度</th>
<th>加热介质</th>
<th>水蒸气消耗</th>
<th>干燥后产品含水量</th>
<th>干燥后产品水分含量</th>
<th>干燥后产品水分含量</th>
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</tbody>
</table>

注：由于干燥后的产物需要有循环介质（如蒸汽，丙酮，甲醇等），设备耗冷量需根据实际提升，若所含的原料材料是有机溶剂（如乙醇，甲醇，丙酮等），蒸发器如果的产量大大提升，蒸发器的蒸发量需要相应提升。蒸发器的蒸发量与干燥设备的蒸发量有密切关系。蒸发器的蒸发量与蒸发器的蒸发温度有密切关系。蒸发器的蒸发温度与蒸发器的蒸发温度有密切关系。
低温薄层干燥机

**THIN-LAYER DRYING SYSTEM**

Low-temperature thin-layer drying technology is an important part of modern drying equipment. It is widely used in fields such as food, health care products, pharmaceuticals, chemical industries, and so on.

**Working Principle**

Low-temperature thin-layer drying is achieved by controlling the temperature and humidity of the drum surface to ensure uniform drying. The material is evenly spread on the drum surface and then dried by heat and air. The drum rotates slowly, and the material is gradually dried and removed from the drum. This process ensures uniform drying and high efficiency.

**Performance Features**

- **Main Performance Parameters**
  - *Dryer Temperature*: 50-95°C
  - *Material Feeding*: 1-5mm
  - *Heating Temperature*: 50-95°C
  - *Distillation Water*: 1-6ppm
  - *Operation Control*: Automatic control
  - *Evaporation Capacity*: 3-10kg/h
  - *Product Moisture*: 3-8%
  - *Product Moisture*: 3-8%
  - *Vacuum Pressure*: 6-60kPa

- **Equipment Advantages**
  - Widely used in various fields such as food, health care products, pharmaceuticals, chemical industries, and so on.
  - Uniform drying temperature and humidity to ensure high efficiency.
  - Suitable for various materials, including heat-sensitive materials.

**Process Flow Chart**

The process flow chart shows the steps involved in the thin-layer drying system, from material feeding to product output. The material is evenly spread on the drum surface, then dried by heat and air, and finally removed from the drum in a uniform manner.
低温薄膜干燥机与其他类型干燥机性能比较

<table>
<thead>
<tr>
<th>干燥方式</th>
<th>干燥介质</th>
<th>干燥温度</th>
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<td>真空干燥</td>
<td>真空</td>
<td>80-90℃</td>
<td>2-3小时</td>
<td>60-70%</td>
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<td>1-2小时</td>
<td>50-60%</td>
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<tr>
<td>微波干燥</td>
<td>微波</td>
<td>90-120℃</td>
<td>15-30秒</td>
<td>70-90%</td>
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</tbody>
</table>

低温薄膜干燥机

适用范围 APPLICATION SCOPE

低温薄膜干燥机广泛应用于食品、保健品、农副产品加工、医药、化工等行业干燥生产。

蔬菜类：南瓜、胡萝卜、山药、豆角、西兰花、紫菜等。
瓜类：西瓜、甜瓜、哈密瓜、苦瓜、南瓜等。
蔬菜：西兰花、菠菜、青菜、菠菜、苦瓜等。
蘑菇：蘑菇类、香菇等。
谷物：大米、小麦、玉米等。
水果：苹果、香蕉、梨等。
花卉：花卉、玫瑰等。
中药材：中草药、草药等。

核心技术 CORE TECHNOLOGY

低温薄膜干燥技术: Low temperature thin layer drying technology
- 中国专利：低温薄膜干燥机 ZL 2015 0 0801797.5
- 中国专利："Thin-layer drying system" ZL 2015 0 0801797.5

物料薄膜分料技术: Raw material thin layer distributing technology
- 物料薄膜分料技术，可实现物料1-5mm厚度的均匀、快速、稳定分料。
- 用于薄膜分料技术及设备的开发与应用。
- 高效的薄膜分料技术及设备，可实现物料的均匀、快速、稳定分料。
- 高效的薄膜分料技术及设备，可实现物料的均匀、快速、稳定分料。

加湿带状干燥技术: Conveyor film joint technology
- 贴湿加湿带状干燥技术及设备，可实现物料的均匀、快速、稳定分料。
- 高效的薄膜加湿技术及设备，可实现物料的均匀、快速、稳定分料。
- 高效的薄膜加湿技术及设备，可实现物料的均匀、快速、稳定分料。

设备型号 EQUIPMENT SPECIFICATION

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<th>型号</th>
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<th>蒸发能力</th>
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<td>MJ-24</td>
<td>24</td>
<td>4</td>
<td>18.92×2.1×2</td>
<td>55-120</td>
</tr>
<tr>
<td>MJ-30</td>
<td>30</td>
<td>5</td>
<td>23.13×2.1×2</td>
<td>70-150</td>
</tr>
</tbody>
</table>

应用实例 APPLICATION CASES

蔬菜干燥: 胡萝卜、卷心菜、蘑菇、茄子等。
水果干燥: 苹果、香蕉、梨等。
谷物干燥: 大米、小麦、玉米等。
中药材干燥: 中草药、草药等。

洋葱干燥 Grape drying
苹果干燥 Apple drying
小麦干燥 Wheat drying
气流速热灭菌机
AIRFLOW INSTANTANEOUSLY HEATING STERILIZER

我们经过三年的努力，成功开发了气流速热灭菌机。本设备的成功开发解决了中药、食品、保健品等行业常见的高效无菌难题。

Through three years' effort, we successfully developed airflow instantaneously heating sterilizer, which solves powder & granule material's sterilization process problems in traditional Chinese medicine, food & healthcare, and so on industries.

工作原理 WORKING PRINCIPLE

采用过热蒸汽通过通道加热，使气体温度提高到100℃以上，通过蒸汽压力炒锅使药有产品，在1分钟的时间内完成灭菌，再通过气水分离进入缓冲区，完成冷却后分离出料。

Adopting superheated steam as auxiliary heating media, raising the temperature of air to over 100℃. At the same time, powder and granule material be transported by steam pressure. The sterilizing process is finished in 4 seconds, then through vapor powder separation into cooling zone. After cooling, the material will be separated with air, then discharged.

主要配置 MAIN CONFIGURATION

气流速热灭菌机由连续进料系统，加热灭菌系统，气水分离系统，产品冷却系统，连续进料系统，自动清洗系统，自动控制系统组成。

Airflow instantaneously heating sterilizer consist of continuous feeding system, heating sterilization system, vapor & powder separating system, cooling system, continuous discharging system, automatic cleaning system, automatic controlling system.

工艺流程图
Process flow sheet

清洗流程图
Clean flow chart
### 设备优点 
**equipment advantage**

灭菌过程简单，时间短，无残留，有效成分损失率小于2%，灭菌产品生物量总损失率30%以下。由于压力、温度等条件可以任意调节，所以压力范围广泛，适用于各种耐热性微生物的灭菌。

Simple & instantaneous sterilization process, no residue, the loss of effective components is lower than 2%, sterilization indicator: the total number of biological bacteria per gram is less than 300. Due to pressure, temperature and other treatment conditions can be adjusted freely, the sterilization application is very wide, can be applied to various powder & granule material sterilization.

### 灭菌测试数据 
**Sterilization test data**

<table>
<thead>
<tr>
<th>[叶茎类] (Leaf &amp; roots)</th>
<th>[谷实类] (Cereal grains)</th>
<th>[蔬菜类] (Vegetable)</th>
<th>[蘑菇类] (Mushrooms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>大麦芽芽 Barley leaf</td>
<td>大麦芽芽 Barley bran</td>
<td>姜根 Ginger</td>
<td>蜂蜜 mumme</td>
</tr>
<tr>
<td>60</td>
<td>100</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>3.0×10^10</td>
<td>1.0×10^11</td>
<td>1.0×10^10</td>
<td>1.0×10^10</td>
</tr>
<tr>
<td>阳性 Positive</td>
<td>阳性 Positive</td>
<td>阳性 Positive</td>
<td>阳性 Positive</td>
</tr>
<tr>
<td>小麦粉 Rice powder</td>
<td>小麦粉 Rice bran</td>
<td>蔬菜类 Vegetable</td>
<td>蘑菇类 Mushroom</td>
</tr>
<tr>
<td>100</td>
<td>130</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>1.0×10^10</td>
<td>1.5×10^10</td>
<td>1.0×10^1</td>
<td>1.0×10^10</td>
</tr>
<tr>
<td>阳性 Negative</td>
<td>阳性 Positive</td>
<td>阳性 Negative</td>
<td>阳性 Negative</td>
</tr>
</tbody>
</table>

### 产品规格 
**Product specifications**

<table>
<thead>
<tr>
<th>主要材质 Main material</th>
<th>大米粉 SS-304</th>
</tr>
</thead>
<tbody>
<tr>
<td>尺寸 Size</td>
<td>mm</td>
</tr>
<tr>
<td>重量 Weight</td>
<td>kg</td>
</tr>
<tr>
<td>电源 Power source</td>
<td>kw</td>
</tr>
<tr>
<td>蒸汽 Steam</td>
<td>kg/hr</td>
</tr>
<tr>
<td>空气 Air</td>
<td>L/min</td>
</tr>
<tr>
<td>冷却水 (冷却水)</td>
<td>Cooling tower water</td>
</tr>
<tr>
<td>运力 Capacity</td>
<td>kg/hr</td>
</tr>
<tr>
<td>加热温度 Heating temperature</td>
<td>℃</td>
</tr>
<tr>
<td>加热时间 Heating time</td>
<td>sec</td>
</tr>
<tr>
<td>冷却水温度 Cooling water temperature</td>
<td>℃</td>
</tr>
<tr>
<td>控制柜 (触控屏) Control cabinet</td>
<td>L/min</td>
</tr>
<tr>
<td>触控屏 (用户操作)</td>
<td>L/min</td>
</tr>
</tbody>
</table>

### 技术参数 
**Technology parameter**

- 加热灭菌温度: 180℃
- 灭菌方法: 50-150毫米/小时
- 灭菌速度: 20km
- 蒸汽流量: 200毫米/小时
- 冷却水流量: 108毫米/小时
- 压缩空气流量: 20米/分钟
- 外形尺寸: 根据不同型号确定

- Heating sterilization temperature: 180℃
- Sterilization capacity: 55-150kg/hr
- Installed power: 25kw
- Steam consumption: 250kg/hr
- Cooling water consumption: 108m³/hr
- Compressed air consumption: 20L/min
- Size: be ascertained according to different models
超低温真空浓缩机
VACUUM LOW-TEMPERATURE EVAPORATOR

超低温真空浓缩机是公司近几年开发的一种新型低温浓缩设备，通过真空浓缩从而降低物料的蒸发温度，使浓缩设备的结构和运行模式与传统的浓缩设备有所不同。通过限压和冷冻，增加了蒸发的表面系数和蒸发效率。形成滴状蒸发原理，物料在冷冻的环境下直接蒸发，从而实现了真空条件下连续进料，连续出浓液的浓缩过程。本设备的成功开发和应用改变了传统浓缩工艺的温度高，时间长，物料易变性、浓缩过程容易粘粘干涸、物料浓度高后蒸发性差无法浓缩等现象。由于低温，极大地保留了物料的原有液态成分。

Vacuum low-temperature evaporator is new concentrating equipment developed by our company. It realizes low temperature evaporation through high vacuum degree. There is a spinning roller inside the evaporator. Hot water is used to heat the bottom of the evaporator and the spinning roller. Continuous spinning of the roller increases evaporation area and speed, resulting in thin-film evaporation. By continuous contact with the surface of the spinning roller, the raw thin material is evaporated with high efficiency. From the discharge, the entire concentration process is continuous under vacuum state. Vacuum low-temperature evaporator overcomes many problems met by traditional evaporator, such as high concentrating temperature, long concentrating time, denaturation of raw material, easy scale formation during concentration, post humidity after concentration and no further concentration. Because of the low evaporation temperature in our equipment, active ingredients of the raw material are kept.


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设备优点 EQUIPMENT ADVANTAGE

- 高真空条件下实现连续进料、连续出料
- 恒温恒压蒸发器设计，恒定化、自动化
- 超低温的蒸发保存了产品有益成分
- 工艺温度在-20℃~0℃可调
- 物料的湿度在常温蒸发的条件下不会粘连
- 在低温浓缩时，物料会形成雾状
- 在线自动清洗，速度快，无死角，清洗彻底
- 运行过程中无任何有害物质
- 整机设备符合GMP要求

- Continuous feed and discharge under vacuum state
- Automatic, continuous, closed process
- Protection of active ingredients of raw materials under low temperature
- Adjustable concentration temperature (-20℃~0℃)
- No viscosity of density, as long as with fluidity
- Online density monitor, automatic discharge of finished materials
- CIP system, quick & thorough cleaning, no dead corner
- Solvents recycling
- GMP Standards

适用范围 APPLICATION RANGE

主要适用于制药、食品、化工行业的低温、热敏性的液体物料，要求在低温（-20℃~0℃）条件下浓缩，例如：果汁、奶制品、速溶茶、中药原料、发酵液、乳酸液、蛋白酶、植物提取液、生物制品等。

Suitable for the heat-sensitive liquid material that requires low temperature (-20℃~0℃) in pharmaceutical, food, chemical industries, such as fruit juice, milk products, instant tea, liquid, Chinese traditional medicine raw material, fermentation broth, bacterial acid bacteria, protease, plant extract, biological products, etc.


---

<table>
<thead>
<tr>
<th>型号</th>
<th>冷却面积</th>
<th>蒸发能力</th>
<th>工作真空</th>
<th>加热介质</th>
<th>蒸发温度</th>
<th>浓缩比值</th>
<th>主机功率</th>
<th>设备重量</th>
<th>外形尺寸</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2-NS-5</td>
<td>3</td>
<td>80-100</td>
<td>-0.098</td>
<td>冷却水</td>
<td>20-50℃</td>
<td>Adjustable</td>
<td>5.9</td>
<td>1500</td>
<td>3.8×1×3.6</td>
</tr>
<tr>
<td>M2-NS-10</td>
<td>10</td>
<td>300-600</td>
<td>-0.098</td>
<td>冷却水</td>
<td>25-50℃</td>
<td>Adjustable</td>
<td>15.2</td>
<td>2200</td>
<td>5.2×1×4.2</td>
</tr>
<tr>
<td>M2-NS-15</td>
<td>15</td>
<td>500-600</td>
<td>-0.098</td>
<td>冷却水</td>
<td>25-50℃</td>
<td>Adjustable</td>
<td>6.5</td>
<td>3000</td>
<td>6.5×1×4.2</td>
</tr>
<tr>
<td>M2-NS-20</td>
<td>20</td>
<td>600-800</td>
<td>-0.098</td>
<td>冷却水</td>
<td>20-50℃</td>
<td>Adjustable</td>
<td>11</td>
<td>5000</td>
<td>6.5×1.4×4.6</td>
</tr>
</tbody>
</table>

注：1. 冷却面积中1, 5, 10, 15, 20代表冷却面积，工作温度在0℃-50℃时需额外购入余热。2. 以上数据以实验数据为基础，误差在±5%以内，用户在购买时需自行考虑。
超细粉碎机
FINE CRUSHER

设备优点 EQUIPMENT ADVANTAGE
- 独特的模块化设计
- 高效率、高产能、高产量
- 物料不会在外壳上粘附，清洗方便
- 低噪音，达到环境的要求
- 适用于各种食品、药品、化工原料的粉碎式制粒
- 粉碎和制粒两种工作方式可选
- 热保护措施，操作安全性高
- 灵活的模块化设计
- 高效率、高产能、高产量
- 物料不会在外壳上粘附，清洗方便
- 低噪音，达到环境的要求
- 适用于各种食品、药品、化工原料的粉碎式制粒
- 粉碎和制粒两种工作方式可选
- 热保护措施，操作安全性高
- 适用范围 APPLICATION SCOPE

适用范围 APPLICATION SCOPE
广泛适用于制药、食品、化工等行业，特别适用于处理硬质、结晶和纤维状的物料。

Pharmaceutical, food, chemical and so on industries, especially for products of gelatin, ingots or threadiness form.

设备型号 EQUIPMENT SPECIFICATION

<table>
<thead>
<tr>
<th>设备型号</th>
<th>网目数</th>
<th>产量</th>
<th>用电功率</th>
<th>设备重量</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Mesh</td>
<td>Output</td>
<td>Power</td>
<td>Weight</td>
</tr>
<tr>
<td>MDF6-500</td>
<td>20-120</td>
<td>100-300</td>
<td>5.5</td>
<td>800</td>
</tr>
<tr>
<td>MDF6-500</td>
<td>20-120</td>
<td>200-500</td>
<td>7.5</td>
<td>1400</td>
</tr>
</tbody>
</table>

Feed Device is dust-free sealed with hammer type crushing equipment, independent electrical control.
- Rotor and screen mesh can be easily taken down and installed through front cover.
- Equipped with cooling device, solving heating up problem during producing.
- Easy operation controller, controlling motor speed and driving device.
- Crushing or dry granulating according to client's requirement.
- Expulsion connection, easy to take up and clean.
- Waterproof, dust-proof or explosion-proof according to client's requirement.
- Made of SUS304.
战略合作伙伴

部分客户列表（排名不分先后）

List of some clients (in a random list order)

- 明杰
- P.T.MAYORA（INDAH TBK公司）
- PT.MAYORA（INDAH TBK）(ID)
- 东邦（香港）有限公司
- COLOMBIA Nutresa Group
- 强健Maltexco S.A公司
- Malteco S.A. (CHILE)
- 杜邦（北京）丹佛斯有限公司
- Dupont (Beijing) Co., Ltd
- 台湾金农生物科技有限公司
- GeneFerm Biotechnology Co., Ltd
- 中石化集团
- Sinopec
- 黑龙江江泉药业有限公司
- Sunflower Pharmaceutical Group
- 华润三九
- Conba Group
- 吉林万通药业集团
- Jilian Wantong Pharmaceutical Group
- 天津天士力制药集团
- Tianjin Tasty Pharmaceutical Group
- Guangdong Quantum Hi-Tech Group
- 步长制药
- BUCHANG Pharmaceutical Group
- 广东正大集团
- Guangdong Authentica Group
- 中药三九
- CR Sanju Pharmaceutical
- 恒达药业集团
- Yuanda Pharmaceutical Group
- 江苏天德康医药有限公司
- Jiangsu Herbisky Pharmacy Co.,Ltd
- 杭州天龙药业有限公司
- Guangdong Taisheng Pharmaceutical Co.,Ltd