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专业微波烘干杀菌设备供应商

Professional Microwave drying and sterilization equipment supplier



微波能应用技术

Application of microwave technology

山东科弘微波能有限公司

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COMPANY INTRODUCTION 企业简介

山东科弘微波能有限公司是集科、工、贸为一体，专业从事开发、生产、销售微波能应用设备的高新技术企业，公司成立于2002年，坐落于济南市槐荫区美里湖新沙工业园内，拥有5000m²钣金加工、机加工、焊接、电气组装、设备调试工厂，是国内起步较早、技术积淀比较成熟的微波设备公司，也是当前国内生产规模大、技术实力雄厚、产品门类齐全、行业内成熟的微波能设备专业生产厂家。公司连续多年被评为“济南市守合同重信用企业”，中国中轻产品质量保障中心授予“优质推广产品”，“济南市名牌”产品，“山东省著名商标”。

本公司采用先进技术按GMP、FDA标准，制造国内新一代“科弘”(KH)品牌915MHz、2450MHz两大系列40多种型号、规格的微波能应用设备。为国内外的食品、医药、化工、冶金等多个行业提供技术先进、质量可靠的高新技术设备，其各项主要技术指标居于国际先进水平。公司先后与山东大学、大连理工、辽宁大学、江南大学等高校合作，实现成果转化项目，并与山东轻工业学院长期合作成立“产学研基地”，合作共赢。主要产品有：微波食品干燥、杀菌设备；微波萃取设备、微波化工产品加热干燥设备；农副土特产品保鲜设备、中成药微波干燥设备、微波烧结设备、微波实验炉、微波热风组合干燥设备、微波热泵组合干燥设备等。承接各种应用实验、中试放大生产及全方位技术服务。

本着“创新、严谨、务实、高效”的科弘精神，汇集海内外一流的人才和精英，依据雄厚的技术实力、完备的检测手段，科学的管理。优良的质保体系确保真正的“质量第一、客户至上”。在产品前按用户的产品质量工艺要求，共同进行应用实验的基础上，进而做出周密设计，提供具体实施方案，取得用户共识后精工制造。负责产品安装、调试、培训；设备保修一年，提供终身技术服务。

公司成立以来，产品销售已遍布全国各省市并出口俄罗斯、加拿大、韩国、马来西亚、土耳其、南非、印度等国家和地区，设备深得客户的信赖和赞誉。

科弘微波能有限公司诚挚欢迎海内外新老朋友惠顾、考察、洽谈。

Shandong Kehong Microwave Energy Co.,Ltd. is a hi-tech enterprise that is engaged in professional developing, founded in 2002, is located in the beautiful "Spring-city"- Jinan, producing and selling on microwave energy applying equipments, which is the biggest scale microwave energy equipments manufacturer in China now. Company for many consecutive years was named "jinan obey the contract heavy credit enterprise", in 2006 by China light product quality assurance center awarded the "quality products", in 2007 won the "famous brand" of jinan, in 2008 won the "shandong famous trademark".

Adopting world-advanced techniques and according to GMP and FDA standard we manufacture the local new generation "Kehong" (KH) brand 915 MHz and 2450 MHz two big series and more than 40 species models and specifications microwave energy applying equipments, which provides the advanced technique and reliable quality and hi-tech equipments for many domestic and international industry, such as food, medicine, chemical engineering, metallurgy, etc., whose main technique index reach to international advanced level. We establish cooperative relations with many university, such as Shandong university, Tianjin univercity, Jiangnan univercity. The main products include microwave food drying and disinfecting equipments, microwave industry heating drying equipments, microwave drying, keeping-fresh equipments and microwave burning etc. equipments for agriculture, vice and native products and prepared Ch. medicine, etc. Carrying on various application experiments and enlarging production and all-directions technique services.

In line with Kehong spirit of "science, factualistic, prestigious and sincere", gathering the local and foreign top-grade talented person and elite, depending on strong technique strength, completed examination means, science management and good quality-protecting system, we insure real "Quantity is first and customer is supreme". According to product quantity craft request of the customer before producing, carrying together on applied experiment foundation, then do a careful and attentive design, providing concrete implement project, free maintain of one year and forever technique service.

Since the founding of the company, product sales have been all over the various provinces and cities nationwide and exported to Russia, Malaysia, Turkey, South Africa, Canada and other countries and regions, our equipment won the trust and praise of customers.

TEAMWORK



企业荣誉 HONOR

Since 2002 助力客户一路共同成长

山东省著名商标

济南名牌产品

高新技术企业

守合同重信用企业

山东轻工业学院产学研基地

数十项专利认证

3C产品认证

微波设备出口企业

微波设备领军企业



微波干燥 DRYING

花茶、脱水蔬菜
食品烘干
昆虫烘干
陶瓷制品
中药饮片
化工、化肥、基质
木材烘干

微波解冻 Unfreezing

牛羊肉解冻
海鲜解冻
猪肉解冻
鸡肉解冻
宠物食品解冻

微波杀菌杀虫 Sterilization

液体膏体杀菌
中药丸杀菌
调味料杀菌杀虫
包装食品杀菌

微波焙烤熟化 Baking

海虾熟化烘干
果蔬片熟化
五谷杂粮熟化
坚果熟化



茶叶杀青

猪皮膨化

宠物食品膨化

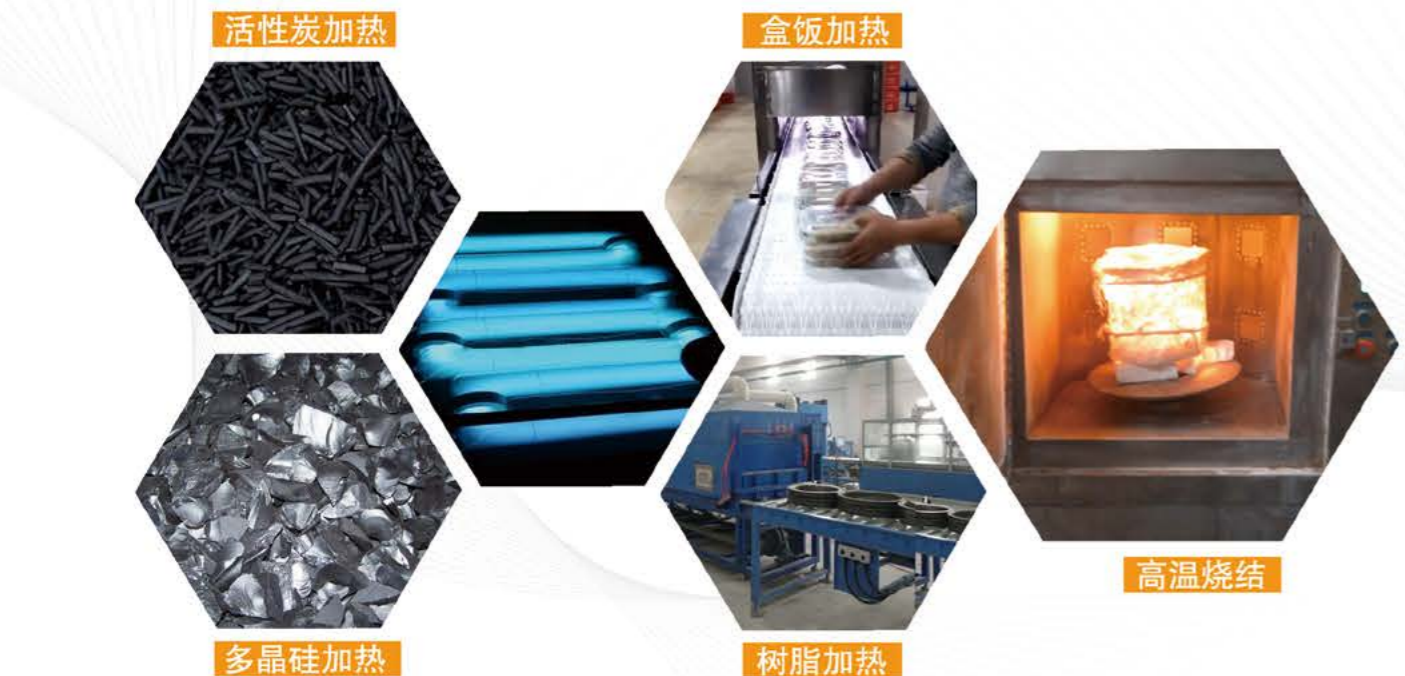
鱼肚膨化

瓜果漂烫

花蕾杀青

微波杀青 Filming for the microwave

微波膨化 Microwave puffing



活性炭加热

盒饭加热

高温烧结

树脂加热

多晶硅加热

微波加热（等离子）Heating

微波烘干设备 Microwave drying machine >>>>



适用范围:

适用于食品、调味品、粮食、农产品、昆虫、木材、化工粉体、陶瓷制品等的烘干、固化。

性能特点:

- 1、微波烘干是利用物料中极性分子（水分子）在高频电磁场中做每秒几十亿次的摩擦碰撞而产生热量，从而达到加热烘干的目的。
- 2、微波烘干不需要外界热源，物料本身吸收微波后，变为发热体，用自体水分加热，无需热传导，高效节能，烘干均匀。
- 3、烘干过程无需预热，开机几分钟之内即达到所需加热温度，无热惯性损耗。
- 4、烘干速度快，物料从进入设备隧道到完成烘干仅需几分钟到十几分钟。
- 5、设备使用清洁能源 - 电能，无三废排放，环保安全。

Application:

Apply to food, spices, food, agricultural products, insects, wood, chemical powder, ceramic products, drying or cure.

Features:

- 1, microwave drying is the use of material in the polar molecules (water molecule) do billions of times per second in the high frequency electromagnetic field of the friction collision and generate heat, so as to achieve the purpose of heating drying.
- 2 without external heat source, by microwave effects, the materials to be heating element itself, without thermal conductivity, high efficiency and energy saving, uniform drying.
- 3 without preheating and drying process, a few minutes to reach the required heating temperature, without loss of thermal inertia.
- 4, fast drying, material from the tunnel into the equipment to the finish drying only a few minutes.
- 5, use clean energy - electricity, there is no "three wastes" emissions, environmental security.

设备选型 Selection:

型号 Model	输入功率 Power input (kVA)	微波功率 Microwave power (kw)	脱水量 Dehydrate (Kg/h)	传动速率 Transmission (m/min)	外形尺寸 长宽高 Size L x W x H (mm)
KH-6HPTN2	9	6	6	0 ~ 5	5000 x 710 x 2000
KH-12HPTN3	18	12	12	0 ~ 5	7000 x 810 x 2000
KH-20HPTN6	30	20	20	0 ~ 5	10100 x 960 x 2000
KH-30HPTN6	45	30	30	0 ~ 5	10100 x 960 x 2000
KH-60HPTN8	90	60	60	0 ~ 5	13100 x 1300 x 2000
KH-100HPTN12	150	100	100	0 ~ 10	18000 x 12000 x 2000
KH-200HPTN16	300	200	200	0 ~ 10	24000 x 15000 x 2000
KH-300HPTN20	450	300	300	0 ~ 10	29000 x 15000 x 2000

微波杀菌杀虫设备 Mirowave sterilization machine >>>>



适用范围:

适用于食品、药品、中药、调味料、辣椒粉、免洗枣的杀菌，亦可用于真空包装冷面、豆制品等的杀菌，以及木耳、香菇、紫菜等农产品的杀虫、杀菌，还可以用于饮料、胶体、油脂、保健酒等的液体杀菌。

性能特点:

1、微波杀菌是热效应和生物效应共同作用的结果，热效应类似于巴氏杀菌和蒸汽杀菌靠温度作用的杀菌过程，而生物效应是微波杀菌特有的，生物效应是指细菌的细胞膜表面会有电子分布，这些电子在高速振荡的电磁场中会随磁场的极性集中到一起，从而改变细胞膜的通透性，导致细菌失水死亡。

2、微波具有穿透性，可以穿透到物料的内部进行彻底杀菌，不受物料形状的限制。

3、微波可以进行低温杀菌，杀菌温度仅需 65-85℃，因此能够最大程度保证物料原有的色泽和成分不被破坏。

4、微波能够快速杀灭农产品中的虫卵，防止物料生虫，大大延长产品保质期。

5、微波能够对包装后的真空食品、罐头食品、瓶装酱料、口服液等进行杀菌，避免二次污染。

Application:

Applicable to food, medicine, Chinese medicine, sauce, chili powder, jujube sterilization, can also be used in vacuum packaging, cold noodles, bean products sterilization, as well as black fungus, mushrooms, seaweed and other agricultural products of insecticidal and sterilization, can also be used for drinks, colloid, liquid, oil, health wine, etc sterilization.

Features:

1, microwave sterilization is the result of the combination of thermal effect and biological effect, heating effect is similar to pasteurization and steam sterilization on temperature effect of sterilization process, and the biological effect of microwave sterilization is peculiar, biological effect refers to the surface of the bacterial cell membrane will have electronic distribution, these electrons oscillating at high speed will vary with the polarity of the magnetic field in electromagnetic fields together, so as to change the permeability of cell membrane, the bacteria will be die because of dehydration.

2, microwave has penetrating, can penetrate to the interior of the material for a thorough sterilization, not restricted by material shape.

3, microwave can be low temperature sterilization, sterilization temperature is only 65-85 °C, thus able to maximize keep the original colour and lustre and material composition is not damaged.

4, microwave can quickly kill eggs in agricultural products, to prevent the material insect, greatly extend the shelf life of products.

5, microwave can for Vacuum packing food, canned food, bottled sauce sterilization, oral liquid, etc, to avoid secondary pollution.

设备选型 Selection:

型号 Model	输入功率 Power input (kVA)	微波功率 Microwave power (kw)	杀菌量 Sterilization (Kg/h)	传动速率 Transmission (m/min)	外形尺寸 长宽高 Size L × W × H (mm)
KH-6HPTN2	9	6	30 ~ 50	0 ~ 5	5000 × 710 × 2000
KH-8HPON	12	8	80 ~ 100	30 ~ 115	800 × 600 × 1700
KH-20HPTN6	30	20	180 ~ 200	0 ~ 5	10100 × 960 × 2000
KH-30HPON	45	30	250 ~ 300	30 ~ 115	2400 × 1800 × 1700
KH-60HPTN8	90	60	500 ~ 600	0 ~ 5	13100 × 1300 × 2000
KH-100HPTN12	150	100	1000	0 ~ 10	18000 × 12000 × 2000
KH-200HPTN16	300	200	2000	0 ~ 10	24000 × 15000 × 2000

微波+红外组合焙烤熟化设备 Microwave + infrared baking machine >>>>



适用范围:

适用于五谷杂粮、代餐粉、各种坚果、瓜子、花生的焙烤熟化，薯片、枣片的熟化，海鲜类大虾、鱼片的熟化等。

性能特点:

1、微波熟化属于低温烘焙，烘烤温度仅需 100 度 ~12 度左右，能最大程度使物料的营养成分不被破坏。

2、烘焙时间短，微波直接穿透物料内部，内外同时加热，烘焙效率更好。

3、配合红外焙烤使用，使得物料口感更酥脆，烘烤物料的颜色更诱人。

4、微波熟化安全卫生，物料在整个熟化过程中，相对静止，无摩擦翻滚。

5、微波烘焙具有微膨化作用，使熟化的物料更容易粉碎。

application:

Applicable for grain and meal powder, all kinds of nuts and seeds, peanuts, baking, potato chips, jujube, seafood prawn, fish fillet, curing baking, etc.

Features:

- 1, the microwave baking is low temperature baking, baking temperature only 100 ~ 120 degrees or so, can make much material nutrients are not destroyed.
- 2, short baking time, microwave directly through the material inside, inside and outside heating at the same time, the efficiency is better.
- 3, used with infrared baking, making the material more crisp taste, the color of the baking material more attractive.
- 4, microwave baking safety and health, materials in the whole baking process, relatively static, no friction.
- 5, slightly bulking effects of microwave baking, make it easier for smashing.

设备选型 Selection:

型号 Model	输入功率 Power input (kVA)	微波功率 Microwave power (kw)	红外功率 infrared power (kw)	熟化产量 Dehydrate (Kg/h)	传动速率 Transmission (m/min)	外形尺寸长宽高 Size L×W×H (mm)
KH-18HPTN2	24	12	6	50	0 ~ 5	8500 × 710 × 2000
KH-32HPTN3	44	20	12	100	0 ~ 5	11500 × 810 × 2000
KH-52HPTN6	72	40	12	200	0 ~ 5	14000 × 960 × 2000
KH-78HPTN7	108	60	18	300	0 ~ 5	16000 × 960 × 2000
KH-124HPTN8	168	100	24	400 ~ 500	0 ~ 5	17000 × 1300 × 2000

915MHZ微波解冻设备 Microwave unfreezing machine >>>>



适用范围:

适用于牛羊肉、猪肉、鸡肉及海鲜的解冻，也可应用于油脂、化工原料的解冻。适合于进口肉类企业、熟食加工企业及连锁餐饮企业的快速解冻。

性能特点:

1、解冻速度快。微波解冻是穿透解冻，物料内外同时解冻，解冻快，提高生产效率，大大缩短解冻时间。以重量为 25Kg，外形尺寸为 600mmx400mmx150mm 的袋装肉在 -18℃左右通过微波解冻设备只需 5-10 分钟就可回温到 -4℃ ~ -2℃。处理能力与肉的品质有关，即与肉质的介电常数有关。肉质越肥处理量越大，对精瘦肉的处理能力比肥肉相对小些。

2、解冻均匀。微波解冻能使物料表里同时受到电磁场的作用而产生热量。所以解冻均匀性好，不会出现外热内冷的现象，温差小。

3、物料营养成分不散失。微波解冻通过热效应和生物效应，能保持解冻物料的口味，蛋白质、氨基酸、维生素等营养成分不受破坏。同时具有杀菌作用，提高产品品质。

4、物料不变色，无肉损。自然解冻和水解冻都会有血水流出，肉损率在 5-10%，而且容易变色、霉变，而微波解冻无血水流出，肉损率小于 1%，解冻完产品保持原色。

5、设备连续运行，可靠性高。解冻设备可连续工作，特制微波激励腔与微波环形器，不但提高微波效率和均匀性同时延长了磁控管的寿命。

6、安全卫生。微波解冻是在不锈钢制成的封闭的解冻腔内工作，箱体和传送带可以安全冲洗。

Application:

Applicable for frozen beef and mutton, pork, chicken and seafood thaw, also can be used in oil, chemical raw materials thaw. Suitable for imported meat, cooked food processing enterprise and chains of quick freezing customer .

Performance characteristics:

1, fast thawing.Microwave thawing is penetrating thawing, material inside and outside the thaw at the same time, thawing fast, improve the production efficiency, shorten the thawing time.In weight of 25 kg, shape size is 600 mmx400mmx150mm bagged meat around - 18 °C by microwave thawing equipment just 5-10 minutes to back temperature 2 °C to 4 °C ~ -.Related to the quality of meat processing ability, namely is associated with the dielectric constant of the meat.

2, uniform thawing.Microwave thawing can make the material surface and inside thawing at the same time., will not appear in the external heat and inside cold phenomenon.

3, material nutrients is not lost.Microwave thawing by thermal effect and biological effect, can maintain the taste of the thaw material, protein, amino acids, vitamins and other nutritional ingredients are not destroyed.At the same time have antiseptic effect, improve product quality.

4, material does not change color, no meat loss.Natural thaw and water hawing there will be blood flow, the meat in 5-10% loss rate, and easy to change color, mildew, and no blood flow, the microwave thawing meat loss rate is less than 1%, unfreeze the products keep the primary colors.

5, equipment continuous running and high reliability.Thawing equipment can work continuously, special microwave cavity and microwave circulator, not only improve the efficiency of microwave and uniformity and prolong the life span of the magnetron.

6, safety and health. thawing is in stainless steel closed cavity, cavity and belt can be washing.

设备选型 Selection:

型号 Model	输入功率 Power input (kVA)	微波功率 Microwave power (kw)	解冻量 Unfreezing (t/h)	传动速率 Transmission (m/min)	外形尺寸长宽高 Size L×W×H (mm)
KH-20GMTN2	≤ 30	20	0.3 ~ 0.5	0 ~ 5	8500 × 1000 × 2500
KH-40 GMTN3	≤ 60	40	0.6 ~ 0.8	0 ~ 5	10500 × 1000 × 2500
KH-60 GMTN3	≤ 90	60	1.0 ~ 1.5	0 ~ 5	11500 × 1000 × 2500
KH-80 GMTN4	≤ 120	80	1.5 ~ 2.0	0 ~ 5	13000 × 1000 × 2500
KH-100 GMTN2	≤ 150	100	2.0 ~ 3.0	0 ~ 5	15000 × 1000 × 2500

微波杀青设备 Microwave green fixation machine >>>>



适用范围:

适用于绿茶、桑叶茶、玫瑰花蕾、胎菊的杀青。

性能特点:

- 1、微波杀青利用茶叶自身的水分加热，快速升温，钝化酶的活性，并快速脱去部分水分，便于下一道工序的揉捻。
- 2、微波杀青利用电磁波加热，无需外界热源，杀青均匀，不焦边。
- 3、微波杀青速度快，

温度低，仅需几分钟，不破坏茶叶营养成分，固色留香。

- 4、设备自带冷却系统，快速冷却，防止焖茶。
- 5、微波杀青设备环保无污染，安全卫生健康。

Application:

Applicable for green tea, mulberry leaf tea, rose bud, chrysanthemum bud.

Features:

- 1, microwave green fixation use water of the material heating, rapid heating up, passivation enzyme activity, and quick off part of the water, become easily rolling.
- 2, using electromagnetic heating, without external heat source, pushes the uniform, not coke.
- 3, Fast and low temperature, only a few minutes, does not destroy nutrients, tea were overcome.
- 4, machinet contains cooling system, rapid cooling, prevent the stewed tea.
- 5, environmental and no pollution, safety and healthy.

设备选型 Selection:

型号 Model	输入功率 Power input (kVA)	微波功率 Microwave power (kw)	杀青产量 Dehydrate (Kg/h)	传动速率 Transmission (m/min)	外形尺寸 长宽高 Size L x W x H (mm)
KH-12HPTN2	18	12	6	0 ~ 5	8500 x 710 x 2000
KH-32HPTN3	30	20	12	0 ~ 5	11500 x 810 x 2000
KH-52HPTN6	60	40	20	0 ~ 5	14000 x 960 x 2000
KH-78HPTN7	90	60	30	0 ~ 5	16000 x 960 x 2000
KH-124HPTN8	150	100	60	0 ~ 5	17000 x 1300 x 2000

微波膨化设备 Microwave puffing machine >>>>



适用范围:

适用于干燥后猪皮、鱼鳔、牛皮等动物皮的膨化及动物胶原再成型宠物食品的膨化等。

性能特点:

- 1、无需外界热源，直接穿透胶原内部，迅速膨胀，膨化效果好。
- 2、是替代传统油炸的理想设备，干净卫生，相比传统油炸更健康。
- 3、膨化温度低，最大程度保留物料营养成分。
- 4、膨化速度快，仅需几十秒

钟即可完成膨化过程。

- 5、膨化产品水分急速迁移过程中内部形成微孔，膨化产品复水性好。

Application:

Applicable for animals skins such as pigskin swim bladder, cowhide leather and animal collagen and shaping puffing of pet food, etc.

Features:

- 1, without external heat source, directly penetrate inside of collagen, the rapidly puffing.
- 2, it's an ideal machine to replace the traditional Fried, compared with the traditional Fried more clean and health.
- 3, puffing temperature is low, keep material nutrients not be destroyed.
- 4, fast puffing, it takes only a few seconds to complete puffing process.
- 5, make the micro holes in material, water-soluble easily.

设备选型 Selection:

型号 Model	输入功率 Power input (kVA)	微波功率 Microwave power (kw)	产量 Dehydrate (Kg/h)	传动速率 Transmission (m/min)	外形尺寸 长宽高 Size L x W x H (mm)
KH-30HPTN5	45	30	60	0 ~ 5	11500 x 800 x 2000
KH-60HPTN7	90	60	120	0 ~ 5	13500 x 1000 x 2000
KH-100HPTN8	150	100	200	0 ~ 5	15000 x 1200 x 2000

微波加热设备 Microwave heating machine >>>>



适用范围:

适用于快餐盒饭、胶体、液体的快速加热，以及碳材料加热、活性炭加热再生、碳化硅加热、多晶硅加热、树脂加热等领域。

性能特点:

- 1、对于食品、液体类的加热主要基于水分子吸收微波产生的热量，快速升温。
- 2、对于碳材料、金属氧化物、硅材料等的加热主要基于分子结构极性的吸波特性。
- 3、微波加热可以不受物料形状的限制，直接穿透对物料内外同时加热。
- 4、升温速度快，温度高，对于碳材料、硅材料温度可达 500~1100℃。
- 5、无需外界热源，环保安全。

Application:

Applicable for lunch box, colloid, liquid etc.heating, and regeneration of activated carbon and silicon carbide and carbon material , polysilicon, resin heating, etc.

Features:

- 1, for the heating of food, liquids, mainly based on the heat generated by the water molecules absorb microwave, rapid warming.
- 2, for carbon materials, heating of metal oxide, silicon material is based on the molecular structure of suction port of polarity.
- 3, microwave heating can not be unlimited by material shape, it can through to material inside and outside , heating at the same time.
- 4, fast heating, high temperature, the carbon material, silicon material temperature can reach 500 ~ 1100 ℃ .
- 5, no external heat source, environmentally and safe.

专用设备 Microwave special machine >>>>



紫外线杀菌设备
Ultraviolet radiation sterilization machine

微波阿胶烘房
Gelatin microwave drying room

微波热泵组合烘房
Microwave & heat pump combination drying room

微波废气处理设备
Microwave waste gas disposal machine



小型实验设备系列 Small laboratory machine series >>>>



小型隧道试验机
Small tunnel experimental machine

微波高温炉
Microwave high temperature furnace

小型箱式微波炉
Small box type microwave oven

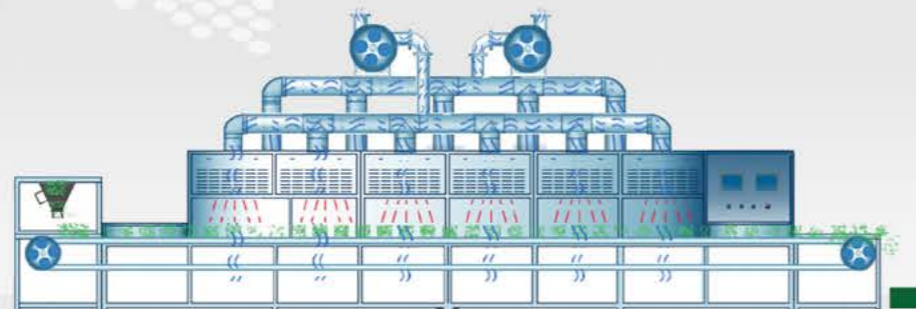
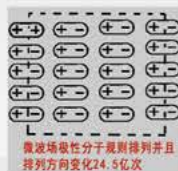
定制微波炉
Customize the microwave oven



微波加热原理 The principle of microwave heating >>>>

微波是频率 300 兆赫 - 300 千兆赫的电磁波。被加热介质物料中的水分子是极性分子，它在高速变化下的高频电磁场作用下，其极性取向将随着外电场的变化而变化，造成分子的运动和相互摩擦作用。使微波场的场能转化为介质内的热能，使物料温度升高，产生热化和膨化等一系列的物化过程，从而达到微波加热的目的。

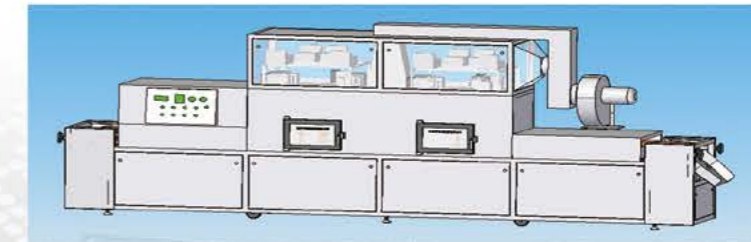
Microwave frequency is electromagnetic waves of 300 MHz -300 GHz. The water in medium materials heated is polar molecules, under the effect of the rapid change of electromagnetic field, its polarity orientation will alter with the changes of the external electric field with the high-speed, causing the movement and friction of molecule. So that the microwave field energy can be converted to heat energy in medium to rise the temperature of materials. Then materials heated go to produce heat, puffing and a series of physical and chemical processes, and so, microwave heating achieved.



微波杀菌机理 Principle of Microwave machine sterilization >>>>

微波杀菌是利用了电磁场的热效应和生物效应共同作用的结果。微波对细菌的热效应是使蛋白质变性，使细菌失去营养、繁殖和生存的条件而死亡。微波对细菌的生物效应是微波电场改变细菌细胞膜断面的电位分布、影响细胞膜周围电子和离子浓度，从而改变细胞膜通透性能，细菌因此营养不良，不能正常新陈代谢。细菌结构功能紊乱，生长发育受到抑制而死亡。此外决定细菌正常生长和稳定遗传的核酸（RNA）和脱氧核糖酸（DNA）是由若干氢键紧密连接而成的卷曲形的大分子，足够强的微波可以导致氢键松弛、断裂和重组，从而诱发遗传基因突变，或染色体畸变甚至断裂。

Microwave sterilization utilize the result of combined action of the thermal effects of and biological effects of electromagnetic fields. Microwave thermal effect on the bacteria is to make the protein of bacteria denatured, lost their nutrition, reproduction and survival conditions down to be dead. Microwave on the biological effects of the bacteria is that the microwave electric field changes cross-section of potential distribution of the bacterial cell membrane and impacts the concentration of Ion and electron around the membrane, which can change the permeability of cell membranes, therefore make bacteria innutrient not be normal metabolism. The structure of bacterial disorders, and growth is inhibited to be dead. Moreover, nucleic acid genetic (RNA) and deoxyribose acid (DNA), which decide the normal growth and stability of bacterial, is curly-shaped macromolecule that made of a number of linked compactly hydrogen bond. The microwave can be strong enough to make hydrogen bond slack, ruptured and recombined, which induce genetics to be mutational, chromosome to be distortional or even broken.



微波设备配置参考 (machine configuration) >>>>

设备结构 Type	隧道式 / 箱式 / 真空 / 推板窑 / 房式 Tunnel/box/vacuum/push board kiln/room type
电源 Power	三相五线 380V ± 5% 50Hz ± 1% 单独接地处理 Three-phase four line grounding
微波频率 Microwave frequency	2450MHz ± 25MHz/915MHz ± 50MHz
微波源 Microwave	韩国三星 / 日本松下、东芝 风冷 / 水冷 / 油冷 Samsung/ Panasonic/Toshiba, Cooling type: air/water/oil cooling
功率调节方式 Power regulation mode	分组可调 / 连续可调 Adjustable grouping/continuous adjustable
传动系统 Transfer system	变频调速 / 齿轮减速机 Frequency control of motor speed/gear speed reducer
输送带 Conveyor	特氟龙 / 聚丙烯链板 / 不锈钢 Teflon/polypropylene/stainless steel chain plate
纠偏方式 Rectify deviation	手动 / 自动 / 导条 Manual/automatic/conducting bar
控制方式 Control	485 通讯控制 / 触摸屏控制 / 按钮控制 485 communication control/touch screen control/button control
微波馈入方式 Microwave feed model	顶部多口馈能方式 / 双侧馈入方式 / 裂缝天线式 At the top of the multi-port can feed way/double side feed-in method/type slot array antenna
排湿热系统 Hot and humid out system	双风道拍湿热 / 可调节 / 低噪声多翼离心风机 Take hot and humid in different duct/adjustable /Centrifugal fan
出料冷却方式 Material cooling	自然风冷 / 空调冷却 Natural air/air conditioning cooling
测温系统 Temperature measurement system	红外线在线测温 / 电偶测温 -20℃ ~1000℃ Infrared / Thermocouple temperature measurement online
监视系统 Monitor system	在线真彩视频监控 Online true color video monitor
辅助加热方式 Auxiliary heating	电热风 / 红外加热 Infrared heating/electric heating tube
微波泄漏 Microwave leakage	< 2mw/cm ²
环境温度 / 湿度 Environment temperature/humidity	0-35℃ / ≤ 80%
工作环境要求 Environmental requirements	无腐蚀性气体、无爆炸性气体 No corrosive gas, explosive gas

应用案例 The application case



国外客户/ 交流合作 Foreign customers/exchange and cooperation



海洋大学



江南大学



中国农业大学



天津大学



北京二商大红门



福胶集团



棒槌岛



西部牧业



凤祥集团



金锣



南风化工



康奇力药业