



工业清洗设备制造商
工艺解决方案服务商

Manufacturer of Industrial Cleaning Equipment
Process solution service provider



清洗机·洁盟造

ULTRASONIC CLEANER · MADE BY SKYMEN

水基溶剂清洗机
Water-Based Solvent Cleaners



洁盟集团
SKYMENGROUP

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深圳洁盟技术股份有限公司
SKYMEN TECHNOLOGY CORPORATION LIMITED

改变传统 绿色清洗

Change the traditional green cleaning

清洗可分为物理作用和化学作用两个方面，超声波清洗技术是物理作用，而清洗剂是化学作用，两种作用相结合，才能对物体进行充分、彻底的清洗。

Cleaning can be divided into two aspects: physical action and chemical action. The ultrasonic cleaning technology is a physical action, while the cleaning agent is a chemical action. The combination of the two actions can fully and thoroughly clean the object.

国内的清洗剂的发展主要经过了三个阶段。

The development of domestic cleaning agents has mainly gone through three stages.

第一阶段——简单型

Phase 1- Simple

主要使用一些腐蚀性很强的强酸、强碱，这些清洗剂组成简单，缓蚀性能差。
The main use of some strong corrosive acid, strong alkali, these cleaning agent composition is simple, corrosion inhibition performance is poor.

第二阶段——组合型

Phase 2- combined type

出现了各种功能型的清洗剂，如渗透剂、剥离剂、促进剂、催化剂等，使清洗剂的功能性更强、协同性能更好、除垢性能和缓释效果更佳。

Various functional cleaning agents have appeared, such as penetrating agents, stripping agents, accelerators, catalysts, etc., which make the cleaning agents more functional, better synergistic performance, better descaling performance and sustained release effect.

第三阶段——环保型

Phase 3- environmentally friendly

随着精细有机合成技术、生物技术、检测技术等相关技术的进步，清洗剂正在向“绿色”环保方向发展，而水基清洗剂研发与应用进一步提高。

With the advancement of fine organic synthesis technology, biotechnology, detection technology and other related technologies, cleaning agents are developing in the direction of "green" environmental protection, and the research and development and application of water-based cleaning agents are further improved.

水基型清洗也称为水溶性清洗

是以水为基体溶剂，配合表面活性剂、弱碱或弱酸溶剂、水溶性有机溶剂等辅助成分，通过润湿、乳化、渗透、分散、增溶能力，来实现对物体表面油污、脏污的清洗。

Water-based cleaning

is also called water-soluble cleaning. It uses water as the base solvent and cooperates with auxiliary components such as surfactants, weak bases or weak acid solvents, and water-soluble organic solvents. Through wetting, emulsification, penetration, dispersion, and solubilization, to realize the cleaning of oil and dirt on the surface of objects.



安全保障

Safety guarantee



绿色环保

Green environmental protection



高效清洗

Efficient cleaning



经济实惠

Economic benefits

目录 CONTENTS

企业介绍

COMPANY INTRODUCTION

公司简介 COMPANY PROFILE	01-02
三大基地 THREE BASE	03-04
发展历程 DEVELOPMENT PATH	05-06
资质专利 QUALIFICATION PATENT	07-08

应用及案例

APPLICATIONS AND CASES

新能源/光伏行业 NEW ENERGY/PHOTOVOLTAIC INDUSTRY	09-10
汽车零部件行业 AUTO PARTS INDUSTRY	11-12
机械五金行业 MECHANICAL HARDWARE INDUSTRY	13-14
光学光电行业 OPTICS AND OPTOELECTRONICS INDUSTRY	15-16
轨道交通/航空航天行业 RAIL TRANSIT/AEROSPACE INDUSTRY	17-18
半导体电子行业 SEMICONDUCTOR ELECTRONICS INDUSTRY	19-20
氢能行业 HYDROGEN ENERGY INDUSTRY	21-22

产品类型

PRODUCT TYPE

单工位真空碳氢清洗设备 SINGLE STATION VACUUM HYDROCARBON CLEANING EQUIPMENT	23
多工位真空碳氢清洗设备 MULTI-STATION VACUUM HYDROCARBON CLEANING EQUIPMENT	24
高压喷淋清洗机 HIGH PRESSURE SPRAY CLEANING MACHINE	25-26
通过式超声波清洗机 TUNNEL CLEANING LINE AND DRYING LINE ULTRASONIC CLEANER	27-28
标准清洗机（单槽/多槽/振板/振棒） STANDARD CLEANING MACHINE (SINGLE TANK/MULTI TANK/TRANSDUCER BOX/ULTRASONIC TRANSDUCER CLEANING ROD)	29-30

合作伙伴

PARTNERS

31-32

COMPANY PROFILE

公司简介



洁盟集团成立于2007年,是一家集研发、生产、销售与服务于一体的超声波清洗设备制造商,专业为全球客户提供超声波清洗技术解决方案,致力于打造成为一家全球领先的“超声波清洗设备全价值链综合服务商”。

Founded in 2007, Skymen Group is an ultrasonic cleaning equipment manufacturer integrating R &D, production, sales and service . It specializes in providing ultrasonic cleaning technology solutions for global customers , and is committed to becoming a world-leading "ultrasonic cleaning equipment Comprehensive service provider of the whole value chain".

扎根超声波清洗行业十余年,洁盟集团一直专注研发超声波清洗技术相关产品综合服务,是国家高新技术企业、深圳市“专精特新企业”。旗下设有深圳洁盟、广东洁盟、广州科盟、韶关洁盟、洁盟声学集团(香港)等数家子公司,分布于华南各地,先后通过了ISO9001、ISO14001等,拥有各类高学历、高技术人员,有多个知名品牌,成功申请百余项专利。产品主要有工业设备类、商用仪器类、家用健康类超声波清洗机,广泛运用于工厂制造、医院医疗、塑胶制品、机械五金、交通运输、电子产品、半导体、新能源等各大领域。客户遍布全球100多个国家和地区。

Rooted in the ultrasonic cleaning industry for more than ten years, Skymen Group has been focusing on the research and development of comprehensive services for ultrasonic cleaning technology-related products . It is a national high-tech enterprise and a "specialized and special new enterprise" in Shenzhen. It has several subsidiaries such as Shenzhen Skymen, Guangdong Skymen, Guangzhou Kemeng, Shaoguan Skymen, Skymen Acoustics Group (Hong Kong), etc., which are distributed in various parts of South China. It has passed ISO9001, ISO 1400 1, etc. , and has various There are highly educated and high-tech personnel, there are many well-known brands, and more than 100 patents have been successfully applied . The products mainly include industrial equipment, commercial equipment, and household health ultrasonic cleaning machines, which are widely used in factory manufacturing, medical care, plastic products, mechanical hardware, transportation, electronic products, semiconductors, new energy and other major fields. Customers are located in more than 100 countries and regions around the world.

十余年的快速发展,使公司逐步建立了一套完整的销售体系,形成了产品丰富、供货便捷、价格合理、服务全球化的企业特色。未来,洁盟人将更加奋进,开拓创新,为落实企业“逐步成为一家受人尊敬的国际化、多元化的百年企业”的愿景和“让世界更洁净,让人类更健康;创造美好,服务社会”的使命不懈努力,也为打造全球领先的“超声波清洗设备全价值链综合服务商”不懈奋斗。

More than ten years of rapid development has enabled the company to gradually establish a complete sales system, forming the corporate characteristics of rich products, convenient supply, reasonable prices, and global services . In the future, Skymen people will be more forging ahead, pioneering and innovating , in order to implement the company's vision of "gradually becoming a respected international and diversified century-old enterprise" and "making the world cleaner and human beings healthier; creating beauty and serving The mission of "society" is unremitting efforts, and it is also making unremitting efforts to build the world's leading "integrated service provider of the whole value chain of ultrasonic cleaning equipment" .



35000+m²
韶关生产基地面积
 Area of Shaoguan Production Base

THREE BASE 三大基地



深圳福永 · 运营总部 Shenzhen Fuyong-Marketing Center

在会展湾·中港广场购置办公室，成立集销售、品牌、人力、财务于一体的运营中心，办公面积约1000m²。拥有非常完善的线下线上推广团队，一直致力于用品牌软实力，来增强前端产品在市场上的竞争力，为实现集团“逐步成为一家受人尊敬的国际化、多元化的百年企业”共同愿景打下坚实基础。

Purchase office at Exhibition Bay · Zhonggang Plaza and set up an operation center integrating sales, brand, human resources, and finance, with an office area of about 1,000 + . With a very complete offline and online promotion team , it has been committed to using the soft power of the brand to enhance the competitiveness of front-end products in the market , in order to realize the group's "gradually becoming a respected international and diversified century-old enterprise" A common vision lays a solid foundation.



深圳沙井 · 研发中心 Shenzhen ShaJing R&D Center

研发中心位于宝安区建安路泰丰工业区，其面积3000+m²，引进欧美日等国超声波清洗技术和设计理念，以国内专业研究机构为依托，自主创新。洁盟研发中心的技术和管理团队核心人员均为数十年以上的行业经验，有着丰富的理论实践经验。

洁盟不仅在外凝聚了不少超声波技术领域人才，更是在内部培养了众多在超声波产品创新和制造领域的高技术人员，至今已拥有百余项专利，其中不乏美国、欧洲、日本等国外专利证书。

The R & D center is located in Taifeng Industrial Zone, Jian'an Road, Bao'an District, with an area of 3000+ m² . It has introduced ultrasonic cleaning technology and design concepts from Europe, America, Japan and other countries, relying on domestic professional research institutions, and independently innovated. The core members of the technical and management team of Skymen R&D Center have more than decades of industry experience and have rich theoretical and practical experience. Skymen has not only gathered a lot of talents in the field of ultrasonic technology externally, but also trained many high-tech personnel in the field of ultrasonic product innovation and manufacturing internally . So far, it has more than 100 patents, many of which are from the United States, Europe, Japan and other foreign countries . patent certificate.



韶关曲江 · 生产基地 Shaoguan Wujiang Production Base

洁盟韶关产业园位于韶关市高新区沐溪八路，由集团全资筹建，总规划建筑面积超35000+m²，生产超声波清洗机年产值可达100万台以上。

基地主要担任集团的生产和研发任务，后续将落户洁盟声学集团超声医疗器械工程研究中心，并引入自动化生产设备和智能化仓储设施，致力于把洁盟韶关产业园打造成生态节能、低碳环保、科技智能的产业标兵。

Skymen Shaoguan Industrial Park is located on Muxi 8th Road, High-tech Zone, Shaoguan City. It is wholly-owned by the group. The total planned construction area exceeds 35,000+ , and the annual output value of ultrasonic cleaning machines can reach more than 1 million units. The base is mainly responsible for the production and R&D tasks of the group. It will be settled in the Ultrasound Medical Device Engineering Research Center of Skymen Acoustics Group, and will introduce automated production equipment and intelligent storage facilities. It is committed to building Skymen Shaoguan Industrial Park into an ecological, energy-saving, low-carbon An industrial pacesetter of environmental protection and technological intelligence.

DEVELOPMENT PATH

发展历程



CERTIFICATE OF HONOR 荣誉证书

100+

截止2022年申请专利和著作权

More than 100 patents and Copyrights have been applied for by 2022

公司各项经营活动有序开展,取得了优异的经营业绩,得到各级相关部门与社会各界的充分认可,先后获得得国家高新技术企业证书、深圳市专精特新企业、广东省守合同重信用企业等国家和省级授予的数十项荣誉资质以及多个研发项目获得省科技厅计划立项支持。

The company's various business activities have been carried out in an orderly manner.It has been fully recognized by relevant departments at all levels and all walks of life .Dozens of honorary qualifications awarded by the state and the province, such as contract-abiding and credit-worthy enterprises, and many research and development projects have been supported by the Provincial Science and Technology Department .



守合同重信用证书

高新技术企业证书

产学研基地

New energy/photovoltaic industry 新能源/光伏行业



以硅材料的应用开发形成的光电转换产业链条称之为“光伏新能源产业”，包括高纯多晶硅原材料生产、太阳能电池生产、太阳能电池组件生产、相关生产设备的制造。在这些相关设备生产制造过程中难免会产生污垢，影响零件的使用寿命及功效，超声波清洗的出现解决了这一根本问题，极大程度上推进了新能源/光伏行业的发展。

The photoelectric conversion industry chain formed by the application and development of silicon materials is called "photovoltaic new energy industry", including the production of high-purity polysilicon raw materials, solar cell production, solar cell module production, and related production equipment manufacturing. In the manufacturing process of these related equipment, dirt will inevitably be generated, which will affect the service life and efficacy of the parts. The emergence of ultrasonic cleaning has solved this fundamental problem and greatly promoted the development of the new energy/photovoltaic industry.

清洗对象 Cleaning object

太阳能电池板、单晶 / 多晶硅片、冲压 / 拉升壳、PCB 板、IC 芯片、三极管、反射器、电容、连接件、显像管、接插件、转接器等。
Solar panel, single crystal/polysilicon sheet, stamping/pull-up shell, PCB board, IC chip, audion, reflector, capacitor, connector, picture tube, connector, adapter, etc.



合作伙伴 Partner



案例展示 Case presentation

JM-7160TD

七槽式全自动超声波清洗机

Seven-tank automatic ultrasonic cleaning machine

清洗工件：铝合金盖板
Cleaning workpiece: aluminum alloy cover plate

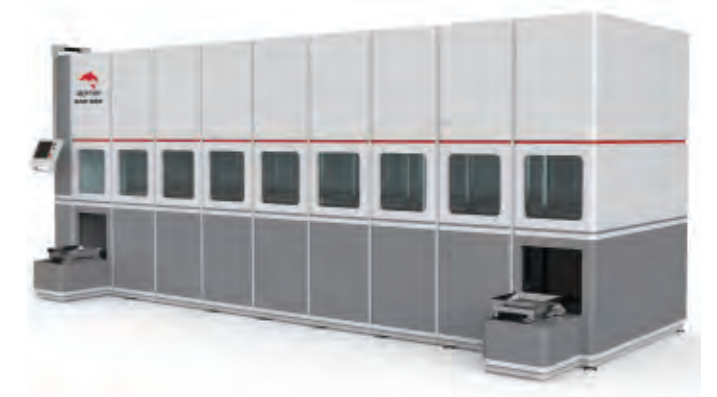
清洗污垢：去除铝壳油污、表面金属屑
Clean dirt: remove aluminum shell oil, surface metal shavings

SUNWODA 欣旺达电动汽车电池有限公司
Sunwoda Electronic Co., Ltd.



设备特点 Features

- 1、配有多槽喷淋功能，能快速剥落被清洗工件表面、细缝中的油污、脏污等。
- 2、配备可拆袋式双级过滤器，操作方便灵活，过滤效果好。
- 3、拥有多个高压风切和烘干槽体，快速干燥被清洗的工件。
- 4、设备带有循环过滤功能，可以为企业降低清洗剂的使用成本。
- 5、加热设备均安排有耐酸、耐氟处理。



1. Equipped with multi-tank spray function, it can quickly peel off the oil and dirt on the surface of the cleaned workpiece and in the crevices.
2. Equipped with detachable bag type dual stage filter, easy to operate and flexible, with good filtering effect.
3. It has multiple high-pressure wind cutting and drying tanks to quickly dry the workpiece to be cleaned.
4. The equipment has a circulation filtering function, which increases the service life of the bath liquid and reduces the cost of cleaning agents.
5. The heating equipment is equipped with acid-resistant and fluorine-resistant treatment.

工艺流程 Process flow



Auto parts industry 汽车零部件行业



汽车部件超声波清洗机主要适用于：增压器、减震器零件、铝、铁、铜压铸件、球墨铸铁件、缸体、壳体、活塞环、液压零件、压缩机零件等等汽车零部件的清洗。超声波可以进入细小的裂缝和盲孔，剥离去除油渍和残留物并且不损坏汽车零部件，达到高效、洁净、环保、美观的要求，超声波清洗技术的出现，极大推动了汽车行业的进一步发展。

For auto parts is mainly suitable for: supercharger, shock absorber parts, aluminum, iron, copper die castings, ductile iron castings, cylinder blocks, shells, piston rings, hydraulic parts, compressor parts, etc. Cleaning of parts . Ultrasonic waves can enter tiny cracks and blind holes , peel off oil stains and residues without damaging auto parts, and meet the requirements of high efficiency, cleanliness , environmental protection , and beauty . The emergence of ultrasonic cleaning machine technology has greatly promoted the further development of the automotive industry .

清洗对象 Cleaning objects

缸盖、齿轮、增压器、喷嘴针、火花塞、油嘴、轮胎、阀体、传动轴、压缩机零件、底盘部件等。

Cylinder head, gear, supercharger, nozzle needle, spark plug, nozzle, tire, valve body, drive shaft, compressor parts, chassis components, etc.



合作伙伴 Partner



案例展示 Case presentation

JM-6300SD

步进式喷淋清洗干燥机

Walking Spray Washing and Drying Machine

清洗污垢：集成壳体除油、杂质

Clean dirt: integrated shell removes oil and impurities

广东鸿特精密技术肇庆有限公司
GUANGDONG HONGTEO ACCURATE TECHNOLOGY CO.,LTD



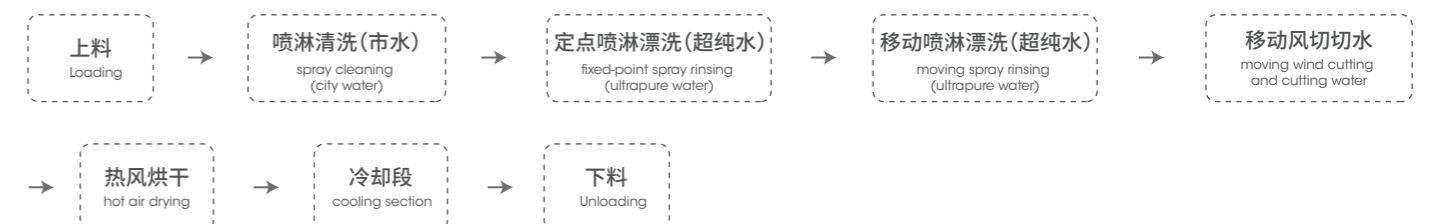
设备特点 Features

- 1、设备装有过载保护装置，一旦有异常，立即报警。
- 2、可根据工件形状不同，针对性的设置一对一定点定孔喷淋。
- 3、设备控制程序可加密，能防止无关人员修改设定的参数，影响最终效果。
- 4、储液槽设密宫式结构，可对清洗出来的油、杂质等污垢进行有效分离。



- 1.The equipment is equipped with an overload protection device. Once there is an abnormality, immediate Alert.
- 2.According to the different shapes of workpieces, 1-to-1 fixed-point fixed-hole spraying and drying can be set in a targeted manner.
- 3.The equipment control program can be encrypted to prevent unrelated personnel from modifying parameters to affect the cleaning effect.
- 4.The liquid storage tank is equipped with an oil skimmer, which can effectively separate dirt such as oil and impurities.

工艺流程 Process flow



Mechanical hardware industry

机械五金行业

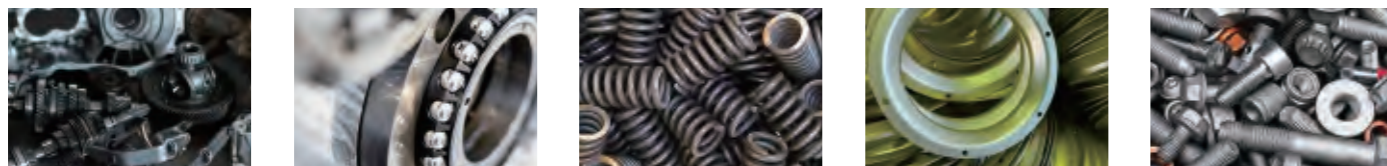


机械五金行业是应用超声波清洗最广的行业之一。在机械五金行业生产制造过程中，零部件表面会沾有不同污垢，比如切削油、蜡、胶、脏污、焊锡等，而且工件用久了，也会有不同程度的生锈，超声波清洗机针对以上污垢，可以达到非常好的清洗效果，既能强力清洗，又能精细清洗，根据不同的五金件的要求，来制定不同的清洗方案。

The mechanical hardware industry is one of the most widely used industries for ultrasonic cleaning. In the manufacturing process of the mechanical hardware industry, the surface of the parts will be stained with different dirt, such as cutting oil, wax, glue, dirt, solder, etc., and the workpiece will be rusted to varying degrees after a long time. Ultrasonic cleaning machine For the above dirt, it can achieve a very good cleaning effect. It can not only clean powerfully, but also finely clean. According to the requirements of different hardware, different cleaning schemes can be formulated.

清洗对象 Cleaning objects

轴承、弹簧、喷头、钢管、螺丝、五金工具、机加工件、液压元件、涡轮叶片、机械零部件、铝合金 / 不锈钢模具等。
Bearing, spring, nozzle, steel pipe, screws, hardware tools, machined parts, hydraulic components, turbine blades, mechanical parts, aluminum alloy / stainless steel mold, etc.



合作伙伴 partner



案例展示 Case presentation

JM-7108AD

七槽式全自动超声波清洗机

Seven-slot Automatic Ultrasonic Cleaner

清洗污垢：切削油、灰尘、细屑
Cleans dirt: cutting oil, dust, nes

设备特点 Features

- 1、拥有三种干燥方式(风切、烘干、真空烘干)，达到工件快速干燥的目的。
- 2、内槽材质使用 316LEP 处理不锈钢。
- 3、过滤循环系统配置高精度过滤器，过滤精度为 0.2μ。
- 4、配备两套高效空气过滤器，过滤空气中灰尘，防止工件二次污染，营造洁净的烘干空间。
- 5、PH及电阻率在线检测，阈值可自主设置，超出即发出警报。

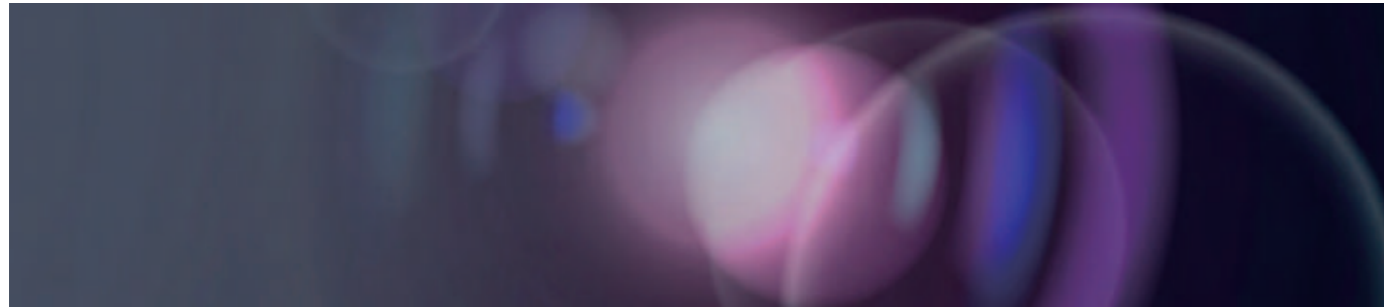
1. It has three drying methods (wind cutting, drying, vacuum drying) to achieve the purpose of rapid drying of workpieces.
2. The inner tank is made of 316LEP stainless steel.
3. The filtration circulation system is equipped with a high-precision filter with a filtration accuracy of 0.2μ.
4. Equipped with two sets of high-efficiency air filters to filter dust in the air, prevent secondary pollution of workpieces, and create a clean drying space.
5. On-line detection of PH and resistivity, the threshold can be set independently, and an alarm will be issued if it exceeds.

工艺流程 Process flow



Optics and optoelectronics industry

光学光电行业



光学镜片在经过粗磨、精磨、抛光、磨边等工序后,借助光学超声波清洗机的“空化效应”清洗技术,可以解决镜片镀膜、胶合、装配前的清洗难题。光学超声波清洗机能够广泛应用于:玻璃镜片、树脂镜片、显微镜、望远镜、相机镜头、镀膜玻璃、棱镜、透镜等光学制品的清洗。

After the optical lens has undergone rough grinding, fine grinding, polishing, edging and other processes, with the help of the "cavitation effect" cleaning technology of the optical ultrasonic cleaning machine, the cleaning problems before lens coating, gluing, and assembly can be solved. Optical ultrasonic cleaning machine can be widely used in: cleaning of glass lenses, resin lenses, microscopes, telescopes, camera lenses, coated glass, prisms, lenses and other optical products.

清洗对象 Cleaning objects

透镜、滤光片、棱镜、激光反射镜、相机镜头、玻璃镜片、树脂镜片、手机盖板、平板玻璃钢化膜、显微镜头等。

Lens, filter, prism, laser mirror, camera lens, glass lens, resin lens, mobile phone cover plate, plate glass toughened film, microscope, etc.



合作伙伴 Partner



案例展示 Case presentation

JM-10108SD

十槽式全自动超声波清洗机

Ten-Tank Automatic Ultrasonic Cleaning Machine

清洗污垢: 灰尘、研磨液

Clean dirt: dust, abrasive fluid

ZEISS 卡尔蔡司光学(中国)有限公司
Cari Zeiss Vision (China) Ltd.



设备特点 Features

- 1、可设置3种清洗程序来达到不同清洗要求,如碱洗、酸洗等。
- 2、内槽使用SUS316L材质,震板表面镀铬处理,预防槽体腐蚀。
- 3、清洗槽设有抛动效果,可以增加工件表面与液体的磨擦,提高清洗效果。
- 4、管道过滤器前后安装压差表,可自主设定压差值,超值将自动报警。
- 5、设备装有抽排风装置,可解决气味外溢等问题。



1. Three cleaning programs can be set for selection to meet different cleaning requirements, such as alkali cleaning, pickling cleaning, etc.
2. The inner tank is made of SUS316L material, and the surface of the vibration plate is chrome-plated to prevent corrosion of the tank body.
3. The cleaning tank is equipped with agitation function, which can increase the friction between the workpiece surface and the liquid, and improve the cleaning effect.
4. The pressure difference gauge is installed before and after the pipeline filter, and the pressure difference value can be set independently, and the alarm will be automatically alarmed if the value exceeds the value.
5. The equipment is equipped with a ventilation device, which can solve problems such as odor overflow.

工艺流程 Process flow



Rail transit/aerospace industry

轨道交通/航空航天行业



轨道交通、航空航天超声波清洗机可以适用大多数零部件的清洗，比如帮助零件除磨蚀和抛光残渣、细砂、灰尘、油脂、冷却剂、研磨膏/蜡、毛刺、积碳等，广泛应用于轴承、制动阀、发动机、弹簧、减震器、散热器、内燃机等飞行器、航天器、地铁、高铁零件的清洗，具有洁净度高、速度快、成本低的优势，所以超声波清洗技术在轨道交通、航空航天行业中的应用越来越广泛。

Ultrasonic cleaning machines for rail transit and aerospace are suitable for cleaning most product parts, such as helping parts remove abrasive and polishing residues, fine sand, and dust; removing grease, coolant, polishing paste/wax, and abrasive paste/wax; Burrs; removal of carbon deposits, etc. Widely used in the cleaning of bearings, brake valves, engines, springs, shock absorbers, radiators, internal combustion engines and other aircraft, spacecraft, subways, and high-speed rail parts. It has the advantages of high cleanliness, high speed, and low cost. Therefore, ultrasonic cleaning The application of technology in rail transportation and aerospace industry is more and more extensive.

清洗对象 Cleaning objects

引擎、气动元件、制动阀、喷油器、发动机、交换器、液压、起落架部件、齿轮、精密零部件等。

Engine, pneumatic components, brake valves, fuel injectors, engines, exchangers, hydraulics, landing gear components, gears, precision parts, etc.



合作伙伴 Partner



案例展示 Case presentation

JM-8760AD

八槽式全自动超声波清洗机

Eight-Tank Automatic Ultrasonic Cleaning Machine

清洗污垢：除油污、除胶

Cleaning dirt: degreasing, degumming



设备特点 Features

- 1、设备安装有高低液位保护程序，低补高停，自动补水。
- 2、设备安装有油水分离装置，可把清洗下来的油污收集处理。
- 3、除胶槽采用冷凝盘管循环，能有效控制易燃易爆清洗剂的温度，保障安全操作环境。
- 4、每套过滤系统后留有取液口，便于人员提取过滤后的液体进行检测。



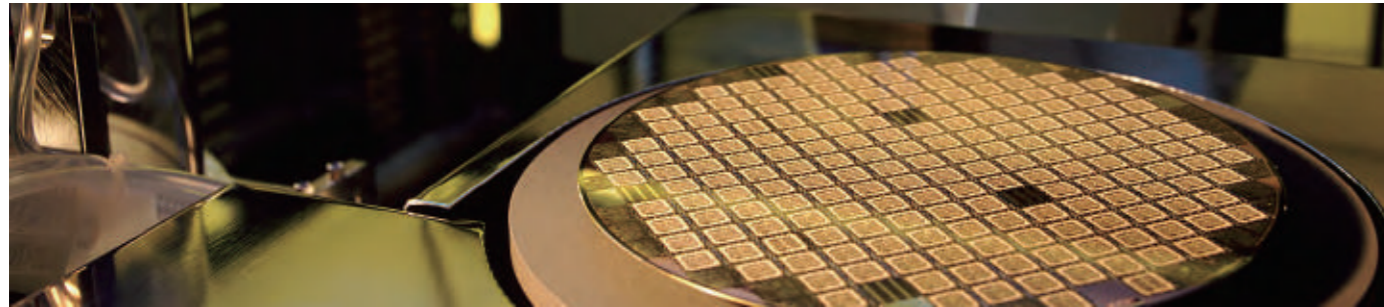
1. The equipment is equipped with high and low positions for rehydration, low replenishment and high stop, and automatic rehydration.
2. The equipment is equipped with an oil-water separation device, which can collect and treat the oily dirt.
3. The glue removal tank adopts condensing coil circulation, which can effectively control the temperature of flammable and explosive cleaning agents and ensure a safe operating environment.
4. There is a liquid intake port behind each filter system, which is convenient for personnel to extract the filtered liquid for testing.

工艺流程 Process flow



Semiconductor/electronic industry

半导体电子行业



半导体超声波清洗机可广泛用于半导体晶体、电阻、电容、PCB板、IC芯片、接插件、连接件、转接器、硅片、三极管、二极管、电子线路板、电脑主板、压电陶瓷片、显像管、电真空器件等电子器件的生产加工过程的清洗。

Semiconductor ultrasonic cleaners can be widely used for cleaning in the process of semiconductor production and processing. Such as crystals, resistors, capacitors, PCB boards, IC chips, connectors, connectors, adapters, silicon wafers, triodes, diodes, electronic circuit boards, computer motherboards, piezoelectric ceramics, picture tubes, electric vacuum devices and other electronic devices.

清洗对象 Cleaning objects

半导体芯片、晶体、二极管、电阻、PCB板、线路板、MEMS器件、电子元器件、计算机主板、零部件壳体等。

Semiconductor chips, crystals, diodes, resistors, PCB boards, circuit boards, MEMS devices, electronic components, computer motherboards, parts and shell seats, etc.



合作伙伴 Partner



案例展示 Case presentation

JM-5024AD

五槽式全自动超声波清洗机

Five-tank automatic ultrasonic cleaning machine

清洗污垢：除灰尘

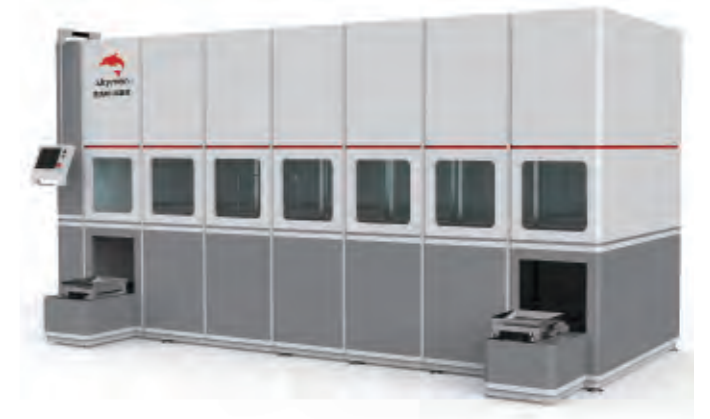
Clean dirt: remove dust

设备特点 Features

- 1、设备配有抛动功能，能高效脱离工件表面污垢，提高清洗效果。
- 2、四重干燥方式结合（慢拉脱水+旋转甩干+热风烘干+真空干燥），快速干燥工件。
- 3、配有高效空气过滤器及抽气风机，保障槽内空气洁净，解决气味外溢等问题。
- 4、管道过滤器前后安装压差表，可自主设定压差值，超值将自动报警。

- 1.The equipment is equipped with Agitation function, which can efficiently remove the dirt on the surface of the workpiece and improve the cleaning effect.
2. Combination of four drying methods (slow lift-out + rotary drying + hot air drying + vacuum drying), quickly drying the workpiece.
- 3.The equipment is equipped with a high-efficiency air filter and an exhaust fan to ensure clean air in the tank and solve problems such as odor overflow.
4. The pressure difference gauge is installed before and after the pipeline filter, and the pressure difference value can be set independently, and the excessive value will automatically alarm.

 光驰科技(上海)有限公司
OPTORUN (SHANGHAI) CO., LTD



工艺流程 Process flow



Hydrogen energy industry

氢能源行业



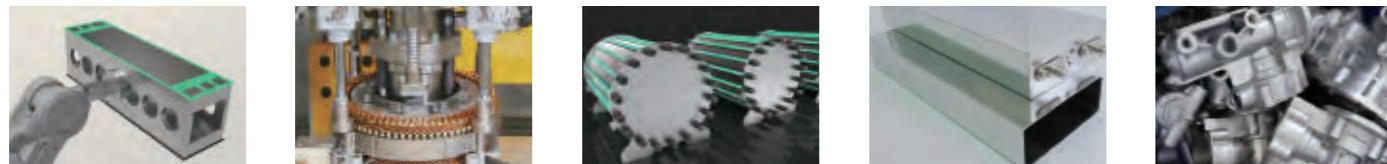
氢能源作为二次能源,来源非常广泛,不仅可以通过煤炭、石油、天然气等化石能源重整、生物质热裂解或微生物发酵等途径制取,也可以来自焦化、氯碱、钢铁、冶金等化工副产氢,但是在制取和加工氢能源设备过程中,所需用到的配件或多或少都会有污垢。超声波清洗机,可以解决所需配件表面沾附上的油污、灰尘等污物,广泛应用于氢能源行业中双极板、单极板等零件清洗。

As a secondary energy source, hydrogen energy has a wide range of sources. It can not only be produced by reforming fossil energy such as coal, oil, and natural gas, biomass pyrolysis, or microbial fermentation, but also from coking, chlor-alkali, steel, metallurgy, and other chemical by-products. Hydrogen is produced, but in the process of producing and processing hydrogen energy equipment, the required accessories will be more or less dirty. The ultrasonic cleaning machine can solve the oil, dust and other dirt on the surface of the required accessories, and is widely used in the cleaning of bipolar plates, unipolar plates and other parts in the hydrogen energy industry.

清洗对象 Cleaning objects

双极板、单极板、电池壳、轴承、螺母、发动机、齿轮、制氢配件等。

Bipolar plate, unipolar plate, battery case, bearing, nut, engine, gear, hydrogen production accessories, etc.



合作伙伴 Partner



案例展示 Case presentation

JM-5156SD

五槽式全自动超声波清洗机

Five-tank automatic ultrasonic cleaning machine

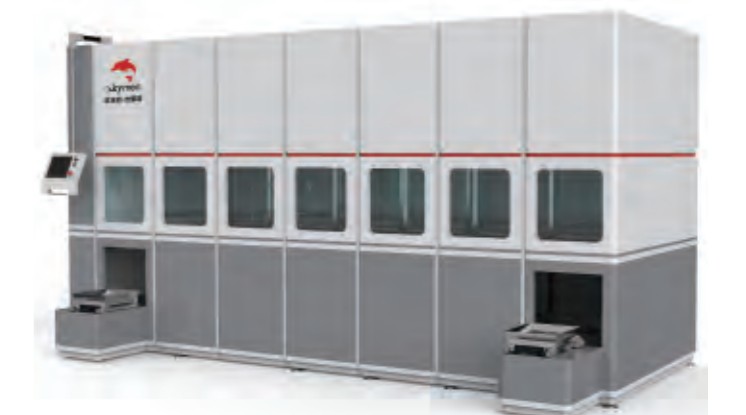
清洗污垢: 除灰尘、颗粒及油污

Clean dirt: remove dust, particles and oil



设备特点 Features

- 1、储液槽内配蒸汽加热盘管及恒温控制器。
- 2、每个槽排液口装有可拆卸式防堵网,以防止小零件掉落进入管道中堵塞管道。
- 3、超声震板采用投入式震板,震动形式为底震+前后侧震。
- 4、高纯水慢拉脱水工艺,迅速散失表面水份,实现表面高清洁度。



1. The liquid storage tank is equipped with a steam heating coil and a constant temperature controller .
2. Each tank drain is equipped with a detachable anti-blocking net to prevent small parts from falling into the pipeline and blocking the pipeline .
3. The ultrasonic vibration plate adopts the input type vibration plate, and the vibration form is bottom vibration + front and rear side vibration .
4. The high-purity water dehydration process can quickly lose surface moisture and achieve high surface cleanliness .

工艺流程 Process flow



Single station vacuum hydrocarbon cleaning equipment

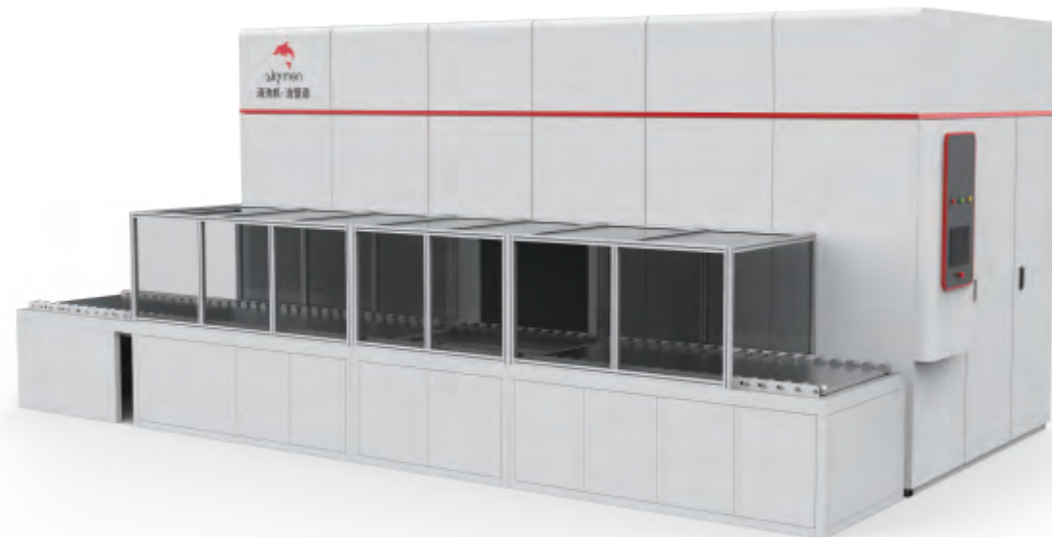
单工位真空碳氢清洗设备

单工位真空清洗机主要是为客户产品设计制造的高智能、高精度清洗设备，主体结构为一个主清洗室和 3 个不同溶剂储罐，工作原理是利用碳氢溶剂在单个腔体真空条件下采用超声波清洗，辅以其它工艺，如喷淋、干燥来清洗产品上的脏污，提高客户产品的清洁度，满足使用要求。

The single-station vacuum cleaning machine is mainly a high-intelligence and high-precision cleaning equipment designed and manufactured for customers' products. The main structure is a main cleaning room and three different solvent storage tanks. Ultrasonic cleaning is used, supplemented by other processes, such as spraying and drying to clean the dirt on the product, improve the cleanliness of the customer's product, and meet the use requirements.

设备特点 Features

- 全部清洗过程在真空环境下运行，极大限度降低清洗剂损耗
The whole cleaning process runs in a vacuum environment, which greatly reduces the loss of cleaning agent.
- 真空超声清洗，对有盲孔的工件清洗效果明显
Vacuum ultrasonic cleaning, which has an obvious cleaning effect on workpieces with blind holes.
- 采用蒸馏水蒸汽间接加热方式，无积碳、无排放
Indirect heating with distilled water steam, no carbon deposits, no emissions.
- 配有环保节能的系统工艺，降低机器使用成本
Equipped with environmentally friendly and energy-saving system technology, which reduces the cost of machine use.
- 设备符合人体工程学设计，可操作性好
The equipment is ergonomically designed and has good operability.
- 可选配不同工艺结合，快速清洗工件
The combination of different processes can be selected to quickly clean the workpiece.
- 全自动智能运行，实现远程终端监控
Fully automatic intelligent operation, realizing remote terminal monitoring.



Multi-station vacuum hydrocarbon cleaning equipment

多工位真空碳氢清洗设备

多工位真空碳氢超声波清洗机针对以碳氢化合物为清洗介质而研发设计的一种超声波清洗设备，通过将超声波清洗技术与真空技术相结合，可以充分发挥碳氢溶剂的清洗优势，达到更经济、更高效、更安全的清洗目的。

The multi-station vacuum hydrocarbon ultrasonic cleaning machine is an ultrasonic cleaning equipment developed and designed for hydrocarbons as the cleaning medium. By combining ultrasonic cleaning technology with vacuum technology, it can give full play to the cleaning advantages of hydrocarbon solvents and achieve more economical, more efficient and safer cleaning purposes.

设备特点 Features

- 配有过滤循环系统，可使碳氢溶剂与污液分离，环保减排
Equipped with a filtration circulation system, which can separate hydrocarbon solvents from dirty liquids and reduce emissions for environmental protection.
- 可配置各种功能(抛动、滚动、过滤等)，加快工件清洗，提高工件表面洁净度
Various functions (agitation, rolling, filtering) can be configured etc.), to speed up the cleaning of the workpiece and improve the cleanliness of the surface of the workpiece.
- 真空超声清洗，对有盲孔的工件清洗效果明显
Vacuum ultrasonic cleaning, the cleaning effect on workpieces with blind holes is obvious.
- 设备全自动运行，过程实时监控，技术先进，运行平稳，操作方便
The equipment is fully automatic, the process is monitored in real time, the technology is advanced, the operation is stable, and the operation is convenient.
- 配有蒸馏再生系统，碳氢溶剂回收率高达 98%，降低其使用成本
Equipped with a distillation regeneration system, the recovery rate of hydrocarbon solvents is as high as 98%, reducing its use cost.

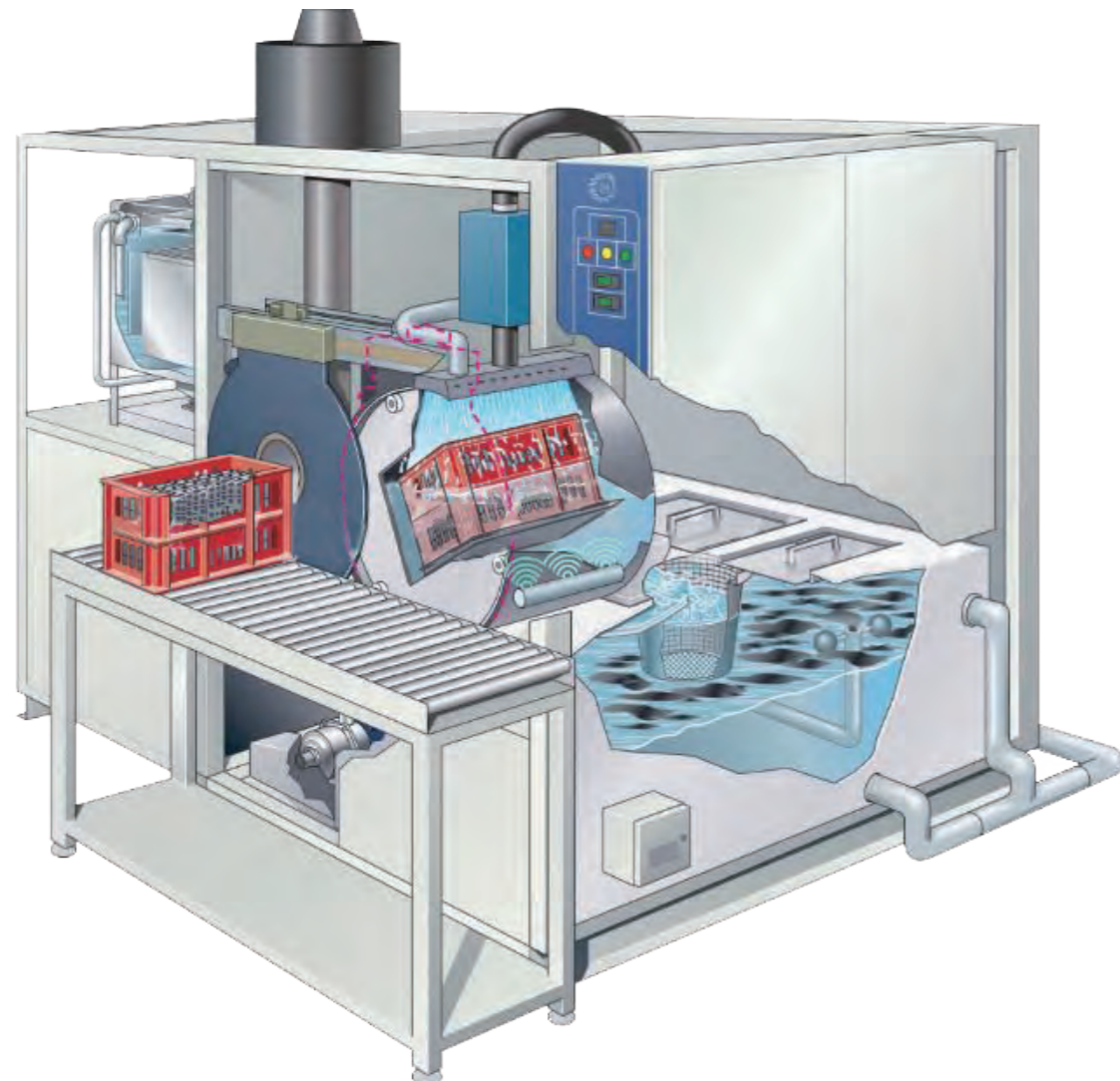


High pressure spray cleaning machine

高压喷淋清洗机

高压喷淋清洗机主要是由电机、高压水泵、储液箱组成，工作原理是运用喷嘴超高压喷洒将表面深孔、沉孔上的颗粒物、脏污、杂屑等剥离。整个设备在操作上是简单的，使用过程中故障率也非常低，清洗效果均匀，可以大批量连续作业。适用于不同类型压铸件的清洗，根据企业产品形状不同，可为其量身定制非标喷淋清洗机、隧道式喷淋清洗机、履带式清洗机。

The high-pressure spray cleaning machine is mainly composed of a motor, a high-pressure water pump, and a liquid storage tank. The working principle is to use ultra-high pressure spraying nozzles to peel off particles, dirt, and debris on the surface deep holes and sink holes. The whole equipment is very simple in operation, the failure rate is very low during use, the cleaning effect is uniform, and it can work continuously in large quantities. It is suitable for the cleaning of different types of die castings. According to the different shapes of the products of the enterprise, non-standard spray cleaning machines, tunnel spray cleaning machines, and crawler cleaning machines can be customized for them.



设备特点 Features

- 清洗腔内部喷嘴根据需求可以上下、左右、侧边、定点布置，保证清洗全面无死角。
 - 配有过滤循环系统，做到清洗剂的最大化运用，极大缩减清洗成本。
 - PLC 工业触摸屏终端控制系统，仅需一人即可操作清洗，简单方便。
 - 清洗速度快、清洗效果均匀，可大批量连续作业。
- The nozzles inside the cleaning chamber can be arranged up and down, left and right, sideways and fixed points according to the needs, ensuring comprehensive cleaning without dead ends.
 - Equipped with a filtration circulation system to maximize the use of cleaning agents and greatly reduce cleaning costs.
 - The PLC industrial touch screen terminal control system only needs one person to operate and clean, which is simple and convenient.
 - The cleaning speed is fast, the cleaning effect is perfect, and it can be operated continuously in large quantities.

清洗对象 Cleaning objects

复杂五金件、压铸铝件、拉伸件、汽车配件、管件制品、轴承等

Complex hardware, die-cast aluminum parts, stretched parts, auto parts, pipe fittings, bearings, etc.

工艺流程 Process flow

进料→喷淋清洗（市水）→喷淋漂洗（市水）→压缩空气切水→热风循环烘干→出料

Loading → spray cleaning (city water) → spray rinsing (city water) → compressed air cutting water → hot air circulation drying → Unloading



Tunnel cleaning line and drying line ultrasonic cleaner

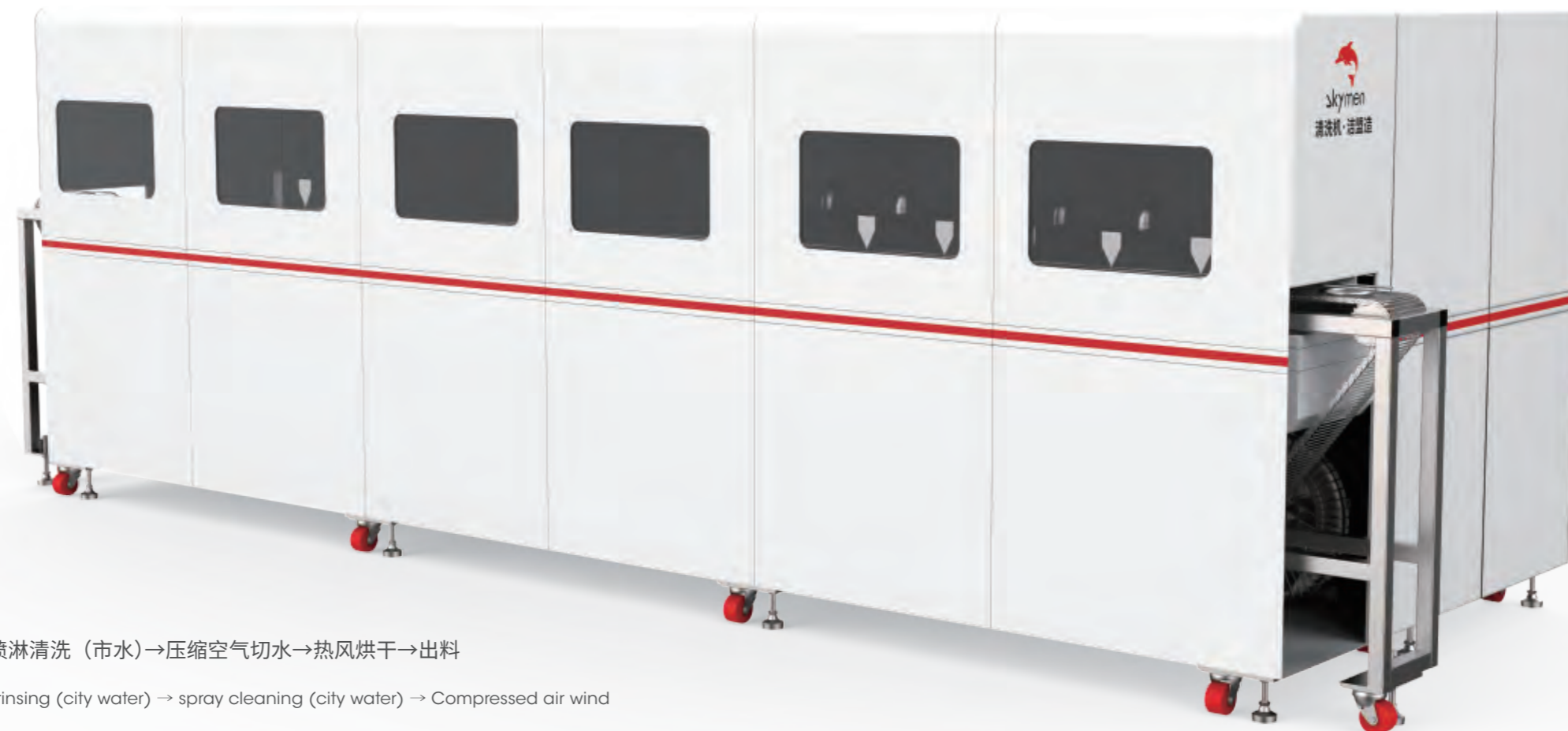
通过式超声波清洗机

通过式超声波清洗机是采用特制的链条和传送带来输送工件，具有多工位，功能全，结构合理，操作方便，清洗效果好等优点，能极大程度上提高工件清洗质量及效率。

作为一款连续输送式清洗设备，通过式清洗机由人工将工件放在输送带上，工件自动通过各清洗室进行清洗，直至结束。清洗液能自动流入回液箱，经过净化处理可循环使用，设备设有雾气回收装置，可以不外接管路。

The through-type ultrasonic cleaning machine uses a special chain and conveyor belt to transport workpieces. It has the advantages of multi-station, full-featured, reasonable structure, convenient operation, and good cleaning effect, which can greatly improve the quality and efficiency of workpiece cleaning .

As a continuous conveying cleaning equipment , the pass-through cleaning machine puts the workpieces on the conveyor belt manually, and the workpieces are automatically cleaned through each cleaning room until the end. The cleaning liquid can automatically flow into the liquid return tank, and can be recycled after purification.



工艺流程 Process flow

进料→超声波清洗（市水）→超声波漂洗（市水）→喷淋清洗（市水）→压缩空气切水→热风烘干→出料

Feeding → ultrasonic cleaning (city water) → ultrasonic rinsing (city water) → spray cleaning (city water) → Compressed air wind cutting → hot air drying → output

设备特点 Features

- 零件直接摆放，前后工序自动连接，传送速度变频可调，自动化程度高。
- 清洗产量大、品种多，设备投入成本低。
- 操作简便，能够降低企业人工清洗成本。
- 可针对不同除污要求，配置相应工艺进行高效清洁。
- 设备可配置循环过滤系统，大大提高了液体利用效率。

- The parts are placed directly, the front and rear processes are automatically connected, the transmission speed is adjustable by frequency conversion , and the degree of automation is high
- Large cleaning output, many varieties, low equipment investment cost
- Easy to operate, can reduce the cost of manual cleaning for enterprises
- According to different decontamination requirements, corresponding processes can be configured for efficient cleaning
- The equipment can be configured with a circulating filtration system, which greatly improves the efficiency of liquid utilization

清洗对象 Cleaning objects

五金零件，铸件，液压件，齿轮，轴承，汽车零部件等

Suitable for all kinds of hardware parts, die-casting parts, hydraulic parts, gears, bearings, auto parts, etc.

单槽超声波清洗设备 Single tank ultrasonic cleaning equipment



非标定制超声波清洗机 Non-standard customized ultrasonic cleaning machine



多槽超声波清洗设备 Multi-tank ultrasonic cleaning equipment



超声波振棒 · 振板 Ultrasonic vibrating rod and vibrating plate



Partners 合作伙伴



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