



诚信 团结 创新 共赢

Live Locally, Think Globally.

Coating Equipment

镀膜设备

SHANGHAI ROYAL TECHNOLOGY INC.



RTSP系列真空磁控溅射镀膜机
Magnetron Sputtering Coater

膜层: 镀膜材料广泛, 可沉积化合物膜, 氧化物膜。适应大面积, 低温镀。

应用: 高端五金, 陶瓷, 塑料, 玻璃,

Features: Extensive coating materials, deposited compound film, oxide film, available for large area coating, low-temperature deposition.

Applications: metals, (SS, Zn/Cu alloy) ceramics, glass, plastics (PET, ABS, PC, PP, PMMA)



RTEP-SP系列蒸发+磁控溅射镀膜机

机型: 立式双开门, 立式单开门

RTEP-SP Evaporation + Sputtering Deposition Coater

Door Configurations:

1-door, horizontal; 2-door vertical; 1-door vertical.

膜层: 蒸发与溅射技术结合, 具有快速, 光亮, 膜层结合力强, 致密性优等特点。可镀制金属膜, 半透明膜, 透明不导电膜, 电磁屏蔽膜, 介质膜。

应用: 3C电子产品, 塑料, 陶瓷, 工艺美术, 装潢装饰材料等。

Features: film contains both properties of evaporation and sputtering. To get NCVM, EMI shielding film, dielectric film, semi-transparent film and metal film.

Applications: plastic parts, construction material, arts & craft, electronics products etc.



RTEP系列真空电阻式蒸发镀膜机

机型: 卧式单开, 立式双开门, 立式单开门。

RTEP Thermal Resistance Evaporation Coater

Door Configurations:

1-door, horizontal; 2-door vertical; 1-door vertical.

膜层: 镀膜速度快, 色泽鲜艳, 膜厚均匀, 可镀制亮面, 哑面(半哑, 全哑), 工艺电镀皱纹, 拉丝, 雨滴, 五彩等效果。

应用: 塑料 (ABS, PS, PP, PV, PVE, TPU, 尼龙), 玻璃, 水晶, 陶瓷, 灯具, 首饰, 烫钻, 工艺品, 手机, 家电等。

Features: high deposition speed, bright color reflective, metallic look.

Applications: Plastic parts, like ornamental and decorative articles, toy parts, fashion and consume jewelry accessories, Christmas tree decorations, buttons, frames, push buttons, handles, plates, automotive lighting, mobile phone and home appliance etc.



RTAC系列真空多弧离子镀膜机
RTAC-Multi Arc Coater (Ion Plating)

膜层: 保护涂层, 硬质涂层和装饰涂层。具有金属离子化率高, 沉积速率快, 膜层附着力强特点。

应用: 钟表, 五金, 建材, 工具, 眼镜, 厨具, 洁具, 3C等产品

Features: Hard coatings, functional & decorative coating, strong adhesion.

Applications: bathroom fittings, kitchenware, tableware, construction products, tools, consumer electronics, watches, spectacles.



RTAC-SP 系列多弧+磁控溅射复合离子镀膜机
Multi Arc-Magnetron Sputtering Coater

膜层: 多弧与磁控溅射完美结合, 具有光洁细密, 较高硬度, 耐磨损, 防腐蚀, 美化装饰等特点。

应用: 五金, 玻璃, 陶瓷, 手机外壳, 手表, 零件等

Features: Perfect combination of multi arcs and magnetron sputtering. Fine finish, high hardness, highly reflective, excellent corrosion and wear resistance.

Applications: metals, glass, ceramic, metal alloy workpieces.



R2R系列卷绕镀膜机

Roll to Roll Vacuum Web Coater

膜层: 由于多种膜沉积源可以沉积氧化物导电膜, 金属导电膜, 光学膜, 介质膜。

基材: PET, PEN, PES, PI, PA, PC 薄膜。

应用: 电子纸, 柔性电路板, 光电, 医疗条码, 射频识别和 Low-E 镀膜等领域。

Features: with multiple coating sources, available for metal oxide conducting film, optical film, dielectric film.

Substrates: PET, PEN, PES, PI, PC, PA films.

Applications: electronic paper, flexible circuits, photovoltaic, medical strips, RFID and Low-E film.

R&D Events

研发活动项目举例

上海永容光电科技有限公司成立于2006年，是一家立足于中国的工业真空镀膜设备制造商。作为一家创新型和成长型企业，公司领导人深知如何通过分享和整合其他国家的经验和技能，与我们的全球合作伙伴和客户共同实现双赢局面。自公司成立以来，永容时刻聆听我们合作伙伴的需求和困难，致力于与他们的紧密合作得以成功开发有利于社会生态环境的新产品。以下为我们的重大技术事件

ShangHai Royal Technology Inc. is an industrial vacuum coating equipment manufacturer in China since 2006. As an innovative and growing corporation, our company leaders know how to achieve win-win situations with our global partners and customers by sharing and integrating experiences and technologies from other vacuum coating business groups. Since our company was established, we have been cooperating closely with our community and by actively listening to their needs and difficulties we have been able to successfully develop innovative products for our partners in our ecosystem.

- **特大型车标镀膜设备，整机重量超过20吨；**
Huge size RTEP series coating systems on Car LOGO Borad's Aluminum Metallization, max. weight > 20T
- **多功能闭合磁场设计镀膜设备，可镀制 DLC、功能性陶瓷薄膜、多层光学薄膜**
Multi Function Closed Field Magnetron Sputtering System, can deposit DLC, ceramic and multi-layers optical thin films.
- **高端除霜用电导透明复合涂层专用设备；**
Exclusive coating plant on defrost application by generation conductive & transparent film.
- **配置先进柱弧，常温镀陶瓷膜专用设备；**
Ceramic film's coating at room temperature condition by introducing in cylindrical arc source.
- **单体顶式卷绕光学镀膜设备；**
Roll to Roll batch type optical coating equipment.
- **半导体领域用多工位连续式镀膜设备开发，属低造价，高性能创新型开发；**
Cluster Tool coating system on semi-conductor industry application: low cost, high-performance innovative coater
- **利用阳极层离子源开发透明DLC膜；**
Transparent DLC film by anode layer ion source
- **大型旋转阴极器件开发；**
Large rotatable cathodic device
- **先进可控弧源研制；**
Advanced steered arc source's development
- **多功能真空镀膜机转架；**
Multi-funtions rotation driving fixture.
- **真空弧弯曲磁过滤装置开发。**
Curved magnetic filter's development.
- **CsI膜沉积，X-光射线高分辨率成像设备应用**
CsI film PVD deposition with thermal evaporation method applied to X-Ray imaging device, which creates high quality resolution on screen.
- **PECVD薄膜沉积制程用于交通工具新燃料氢燃料电池模组。**
PECVD process to deposit thin film, applied to Hydrogen Fuel Cell Vehicles industry.
- **陶瓷基片直接镀铜制程，引用了PVD镀铜技术。**
DPC (Directly Plating Copper) process on ceramic substrates, with PVD copper depositing technology.
- **感应蒸发C60设备的研发。**
RTEP0404, bell model with inductive evaporation coating technique for C60 (Carbon material) deposition.

欢迎与我们分享您的需求和想法，我们将很荣幸为您提供最佳的涂层解决方案。

If you form part of the coating community and would like to join our ecosystem, we welcome you to share your situation, ideas and demands for better operations, and we will be honored to provide you with the best coating solutions for your needs.

About us

公司简介

上海永容光电科技有限公司成立于2006年，是一家集研发、设计、生产、销售和服务为一体的全球高端真空镀膜设备供应商。本公司以上海为生产基地，结合美国和上海研发中心的技术支持，并逐步建立全球化的服务中心，为客户提供高效、持续的优质服务。

永容科技在创新设计和高质量部件选择方面拥有强大的资源和竞争力。精心的组装过程和一流的技术人员、研发团队，使我们能够提供甚至超过西方高标准的真空设备交钥匙涂层解决方案。我们立志于服务全球各个行业的市场，例如：电子产品，汽车交通工具，可再生能源，建筑，纳米和生物医学材料等。

RTAC1250-SP多弧与磁控溅射一体机设备可以生产高反射率的黑色和铜色膜，专门用于高质量装饰涂层的市场。

RTSP1213-DC是一款采用PECVD工艺在氢燃料电池模块上沉积薄膜的磁控溅射系统。燃料电池汽车作为下一代环保汽车的最新技术，与诸如干电池等常用电池相比，主要技术优点体现在无需反复充电，氢燃料电池模块仅需要氢气和氧气反应来产生用于驱动的动力。

RTAC1215-SPMF此镀膜设备专用于DPC（直接镀铜）陶瓷基板工艺。DPC陶瓷基板由于其高散热性能被广泛用于各种领域：如高亮度LED，半导体设备，微波无线通信，军事电子，各种传感器基板，航天，铁路运输，电力等力量等等。

RTEP-0913 CSI蒸镀设备用于X-光高质量图像设备上。CSI薄膜沉积这一先进的高分辨率的性能特点具有高效突破性，被广泛应用于医疗设备，核能行业，安检，高能物理学科等领域。

我们还成功设计开发了大型箱式及圆柱式汽车广告牌真空镀铝设备。

立足本土，着眼世界是我们的愿景。“诚信、团结、创新、共赢”是永容的经营理念。在真空镀膜领域永无止境的探索，力求做真空镀膜设备制造商的先驱与领导者，创造最佳的社会、经济和环境效益。

Shanghai Royal Technology Inc. was established in 2006, a worldwide supplier of high quality vacuum equipment with key locations around the globe. Research and Development technology are supported by specialized engineers in the United States and China. High-tech machine manufacturing facilities are located in Shanghai and our global network of service centers ensure fast customer service response in key locations.

Shanghai Royal Technology has a strong drive for innovative design and high quality components selection, combined with an extra careful assembly process and a topnotch team of talented technicians and inventors, which enable us to offer turn-key coating solutions with high standard vacuum equipment, meeting and often exceeding Western standard. We are determined to serve the market worldwide in various industries such as: Consumer electronics, automotive, renewable energy, architecture, Nano and bio-medical materials.

RTAC1250-SP The arc and sputtering integrated series equipment can produce highly reflective black and bronze films specifically for high quality decorative coatings.

RTSP1213-DC It is a sputtering system with PECVD process to deposit thin film on hydrogen fuel cell power module. Fuel Cell Vehicles is the newest technology for the next generation of environmentally friendly cars. The main advantage and technological progress compared to commonly used batteries like dry cell need to undergo a recurring recharging process, but hydrogen fuel cell power modules only require Hydrogen and Oxygen reaction to generate power for driving.

RTAC1215-SPMF This coating system is exclusively used for DPC (Direct Plating Copper) ceramic substrates process. The DPC ceramic substrates are widely used in various applications: for instance in high brightness LED to increase the longevity because of its high heat radiation performance, Semiconductor equipment, in microwave wireless communication, military electronics, various sensor substrates, aerospace, railway transportation, electricity power and much more.

RTEP-0913 Evaporation coating plant is applied to CsI film deposition for X-Ray Imaging devices. It is an advanced technique to evaporate CsI on the screen to create high quality images. The high-resolution performance allows this application to be extremely efficient and disruptive in the medical instrument, nuclear energy industry, security checking and inspection, high energy physics subjects and more.

Shanghai Royal Technology also successfully designed and developed Cube and Cylinder model large size Aluminum Vacuum Metalizing System which is used for Automotive Logo Board Coating.

Live Locally, Think Globally is our Vision. We live our day to day business by the concept of "Integrity and Solidarity", always striving for innovation to achieve win-win situations in our ecosystem of worldwide partners. As pioneers in the Vacuum Coating Equipment Industry, we never relied on previous accomplishments, but we continuously tried to explore the ever changing world of the Vacuum Coating Industry to always create optimal economic, social and environmental benefits for our customers.

Our Service

我们的服务

Shanghai Royal Technology provides you with more than just a single business opportunity. Whether you are looking for surface treatment solutions using innovative PVD technology for your products, or you are planning to invest in a PVD coating business centre, Royal Technology is your reliable and supportive partner in China. Your success is our success.

Our Service Makes the Difference

- PVD coating equipment proposals and budget calculation;
- Customized coating equipment manufacturing;
- On-site assembly, training and maintenance;
- Total coating solutions;
- Development of advanced coating methods.

Benefits

- Custom-made Equipment

Our experience taught us that best practices can't be offered in "one-size-fits-all" coating solutions. That's why Royal's team of experts continuously follow-up our customers demands, providing them with unique equipment solutions.

Quality Assurance

Quality is always our top priority. We are familiar with the international standards & regulations. All our designs comply, meet or even exceed ISO9001:2008 standards. We use top grade components and we perform extensive testing to make sure our equipment's quality completely satisfy our customers.

Ecosystem support

From the pre-phase to the after sales assistance, we always try to excel and exceed our customers expectations with online and on-site service, making you part of our valuable PVD coating technology ecosystem.

- Personalized Technological Assistance

Our technical representatives will always ensure a close work relationship with our customers throughout the whole process. We will

guide and assist you with our expertise to make your vision come true and develop machines, which will help you meet your business goals.

· After-Sales Service

Equipment installation: Our qualified technicians are sent to your site to ensure a proper assemble and operation training to guarantee the coatings' perfect product finishing.

Applications

Shanghai Royal Technology is a worldwide vacuum coating equipment supplier and has had the privilege to work with top-tier companies in a wide variety of industries, including: automotive, consumer electronics, construction, energy and academia. Our customers have profited greatly by utilizing our professional "turn-key coating solutions" approach to fulfil their demanding specifications.

We are dedicated to manufacture quality equipment and deliver high quality service to our community worldwide. Our strict quality inspection, quick installation, qualified operation training, greatly benefit every customer's return on investment.

Hence please contact us:

If you are planning a PVD coating business operation;

If you want to replenish and / or redistribute your existing coating equipment;

If you have any coating issues on equipment installation and maintenance;

If you are looking for the newest coating processes and solutions;

If you are looking for a professional team to provide Equipment maintenance and repair service, leak detection, PVD equipment removal and installation, PVD coating machine's converting and much more.

If what you are looking for is not listed above, then please feel free to get in touch with us and discuss your issue. We will gladly give a free consultation.

Royal is looking forward to cooperating with your company and be an active part to your success.

Our Factory 工厂展示



先进的生产设备铸就“高质量，低成本，性能稳定”的产品。

在真空镀膜这个行业，质量永远是第一位，其次是服务与交期。我们的策略是：永容自己生产、组装核心部件，而简单的机加工零件外协。在选择优质的外协供应商时，我们更看重的是有效的沟通与高品质的产品，而不仅仅是价格。

Advanced production machines (milling, welding, tooling, etc...) combined with standardized production procedures and reliability testing enables Royal Technology to produce high quality, reliable and low cost coating equipment.

Quality, service and on-time delivery are the core principles of Royal's business. A strategy of openly out-sourcing simple components to professional manufacturers allows us to focus attention to key parts and components manufactured by Royal Technology.

Strict quality control policies and rigorous selection of qualified suppliers assures Royal Technology's customers receive the most advanced, high quality equipment at the lowest possible cost.



Applications 应用领域

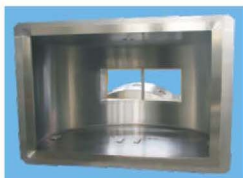


Key Components

主要配件



1 腔体 Vacuum Chamber



2 真空泵组 Pumping System



3 操作电控系统 Operation Control System

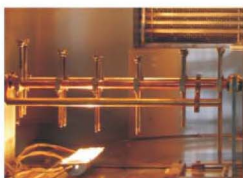


PLC



IPC

4 膜沉积源 Deposition Source



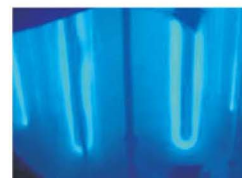
热蒸发 Thermo Evaporation



电子枪 E-beam Gun



阴极弧 Cathodic Arc



溅射 Sputtering

5 电源系统 Power Supply System



弧电源
Arc Source Power Supply



弧偏压电源
Arc Bias Power Supply



中频/直流磁控溅射电源
MF/DC Sputtering Power Supply



脉冲偏压电源
Pulse Bias Power Supply

6 前处理 Pre-treatment



离子源 Ion Source



等离子体 Plasma Treater

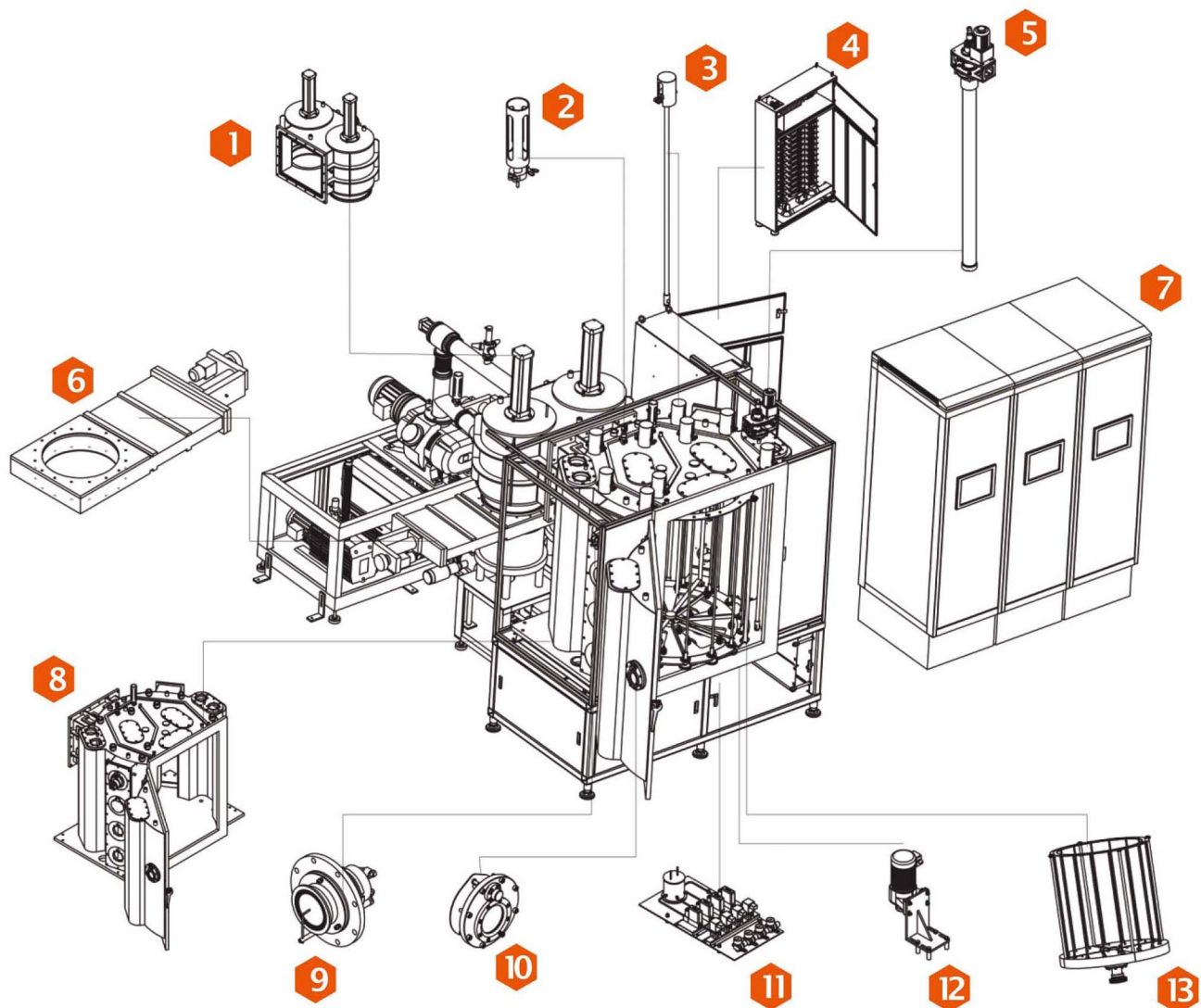
7 测量系统 Measuring System



气体质量流量控制器 MFC



真空计 Vacuum Gauge



No. 编号	名 称	Name
1	抽气系统	Vacuum Evacuation System
2	真空测量系统	Vacuum Measuring System
3	加热系统	Heating System
4	水，气总成	Water/Air Distribution System
5	圆柱磁控阴极	Cylindrical Sputtering Target
6	真空插板调节阀	Vacuum Gate Valve
7	控制系统	Operation & Control System
8	真空室	Vacuum Chamber
9	弧阴极	Cathodic Arc Source
10	观察窗	View Port
11	工艺气体控制系统	Reactive Gaseous Distribution
12	转架驱动系统	Driving System
13	16轴行星转架	16 Planetary Rods

Customer Reference

我们的客户

我们以严谨的服务理念，开拓国内国际市场，建立质量跟踪网络，以客户为中心，开发产品为主导，“塑人品、铸品质”，不断创新，满足不同客户的需求，我们永容的专业人员将会为您提供快速的、优质的一流服务

Royal Technology is a worldwide supplier to many top-tier companies in a wide variety of industries including: automotive, electronics, energy and academia. Our customers have profited greatly by utilizing our professional “turn-key coating solutions” to fulfill their demanding specifications.



Our Suppliers

我们的供应商



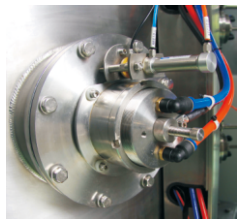
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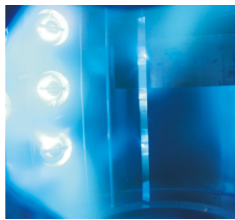




Key components 设备单元



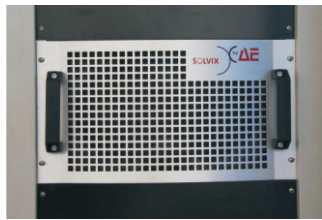
Arc Cathode
阴极弧



Arc Plating
离子镀膜



Arc Power Supply
电源柜



Bias Power Supply
偏压电源



PLC



Electrical Enclosure
电控柜

Cathode Arc Coater

多弧离子镀膜设备

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Description 描述

RTAC 系列真空多弧镀膜机主要用于镀制多种金属膜，也可以镀多层膜、合金膜等，如镀装饰膜（钛金色、铬色、枪灰色、咖啡色等颜色）。适用于五金件，水晶、玻璃、陶瓷工艺品，电子产品、洁具、家居用品、眼镜框、餐具等。

此镀膜设备主要由镀膜腔室、真空获得系统、电弧离子系统、行星旋转基片架、加热器、冷却系统、气路系统、水冷循环系统和循环水制冷系统及断电、水保护系统、自动控制系统等组成。该设备属生产设备，可镀制膜层有氮化钛（TiN）、碳化钛（TiC）、氮化铬（CrN）、氮化铝钛（TiAlN）等膜层，膜层具有高光泽度，高硬度、高耐磨性、抗腐蚀的特性；沉积速度快，很好的绕射性。

RTAC series coating equipment mainly used to deposit various metal and metal alloy coatings, multiple-layer films

1. **Applications:** functional coatings on mechanical tools; glass, crystal and ceramic products; watch and clock metal parts; electronic products, bathroom fittings and house appliance, spectacles, tableware etc.

2. **Structure:** deposition chamber, vacuum pumps, arc sources, spindle & jack, jigs structure, heating & cooling, water & gas (distribution), electrical control & operation systems etc.

3. **Coating Colors:** gold, black, brown, grey, chrome colors etc.

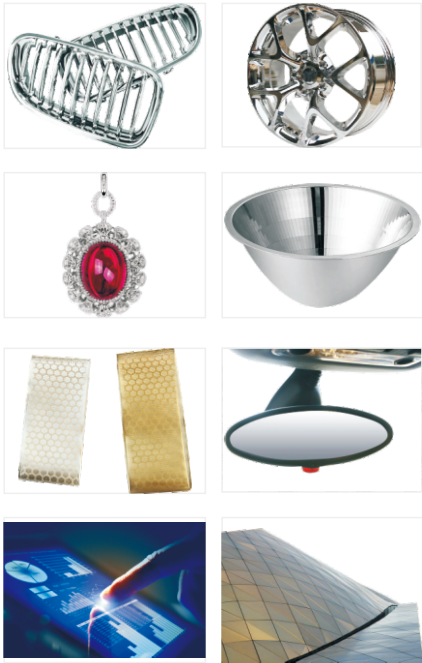
4. **Coatings properties:** TiN, TiC, ZrN, CrN, TiAlN, with high shiny colors, strong adhesion & excellent scratch protection, fast deposition rate, good diffraction.

RTACStandard 标准镀膜设备

Model 型号	Size(mm) 尺寸	Number of Planetary Rods 行星体转轴数量	Bias Voltage(kw) 偏压	Arc Sources 弧源数量	Ultimate Vacuum 极限真空	Cycle Time 镀膜周期	Electrical Power 电源
RTAC1214	Φ1200xH1400	6,8	24	12	8x10 ⁻⁴ Pa	30'~40' depends on substrates 30~40分，由产品决定	3Phase/AC 380V,50HZ
RTAC1416	Φ1400xH1600	6, 8,16	36	14			
RTAC1616	Φ1600xH1600	8,16	36	16			
RTAC1418	Φ1400xH1800	8.16	36	16			

RTAC Customized 订制镀膜设备

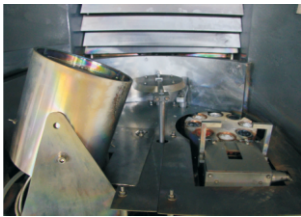
Model 型号	Size(mm) 尺寸	Application 应用	Bias Voltage(kw) 偏压	Arc Sources 弧源数量	Ultimate Vacuum 极限真空	Cycle Time 镀膜周期	Electrical Power 电源
RTAC2022	Φ2000xH2200	Ceramic/glass tiles 瓷砖	60	28	8x10 ⁻⁴ Pa	30'~40' depends on substrates 30~40分，由产品决定	3Phase/AC 380V,50HZ
RTAC2042	Φ2000xH4200	Chandelier,furniture, handrails 大型异形件:展柜架， 吊灯，楼梯扶手，家具等	60	40			
RTAC2336	Φ2300xH3600	Stainless steel sheets and tubes 不锈钢板材， 不锈钢管材等。	60	32			



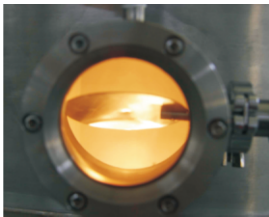
Sputtering Power Supply 溅射电源



Key components 设备单元



E-beam Evaporation
电子束蒸发



Viewpoint
观察窗



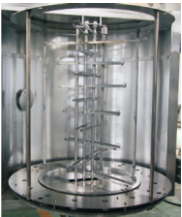
Polycold
水气冷凝捕集器



PLC



Resistant Evaporation
电阻蒸发



Rotation rack
转架

THE THERMAL EVAPORATION COATER 热蒸发镀膜设备

上海市松江工业园区松卫北路819号 201613
819# Songwei Road(N), Songjiang Industrial Zone,
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Descriptipn 描述

PVD蒸发真空镀膜设备,专业在塑料、玻璃等物体表面进行金属化物相沉积。它成膜速率快,膜层牢固,色泽鲜亮,膜层不易受污染,可获得致密性好、纯度高、膜厚均匀的膜层。不产生废液、废水,可避免对环境的污染,是大规模生产的理想设备。

设备应用广泛,如:

装饰性镀膜: 塑料基材 ABS, PP, PC, PET, PMMA, 玩具, 珠宝首饰, 圣诞球装饰产品, 钮扣, 鞋, 镜子, 灯具, 化妆品包装。

功能性膜层: 刀片上的隔热膜, HMDSO硅油保护膜, EMI 和 NCVN等电子产品领域。

光学膜领域: 减反膜, 望远镜, 潜望镜, 放大镜, 数码相机。

蒸发方式: 电阻加热方式: 采用钨丝、钨舟等蒸发气化比其熔点低的金属如: 铝丝, 铬丝, 银丝等。

电子束加热方式: 采用钼, 铜, 石墨坩埚蒸发沉积氧化物, 金属合金颗粒等。

PVD (Physical Vapor Deposition) thermal evaporation process is 100% environmentally friendly. As an advanced coating technology, its high quality finishing, fast deposition rate, brilliant uniformity, strong adhesion and low production cost properties make it an ideal solution for various industries:

Decorative Coatings: ABS, PP, PC, PET, PMMA, glass substrates to deposit a thin film, high reflective, metallic like coating on toy parts, fashion and consume jewelry accessories, Christmas tree decorations, balls, buttons, shoes, mirrors, lamps, cosmetics packages.

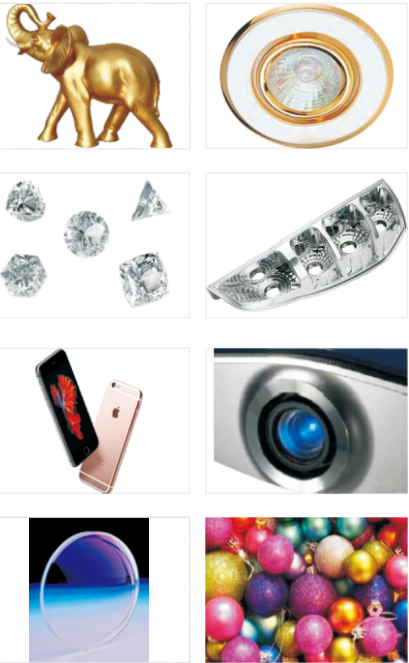
Functional Coatings: protective layer: heating insulation, HMDSO protective layers, EMI & NCVN on electronic parts.

Optics Coatings: Anti-Reflection coating (AR film), telescope, periscope, microscope and digital camera.

Evaporation Methods:

Tungsten filaments, basket, boats and boxes by direct resistant heating to deposit metals which have lower melting point than tungsten like: Aluminum, Chrome, Silver.

Molybdenum, copper, graphite crucibles to deposit oxides, alloys materials which are used majority for the Electron Beam gun evaporation.



REC Standard 标准镀膜设备

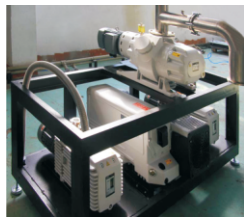
Model 型号	Size(mm) 尺寸	Door Configuration 门结构	Number of Planetary Rods 行星体转轴数量	Evaporation Power(kVA) 蒸发电源	Plasma(kVA) 等离子电源	Ultimate Vacuum 极限真空	Cycle Time 镀膜周期	Electrical Power 电源
RTEP1012	Φ1000xH1200	1 door, vertica or horizontal	6,8,10	20	7	8x10 ⁻⁴ Pa	10'~15' depends on substrates 10 ~15分, 由产品决定	3Phase/AC 380V,50HZ
RTEP1416	Φ1400xH1600	1 door, vertica or horizontal	6, 8,16	30	7			
RTEP1418	Φ1400xH1800	1 door, vertica or horizontal	6,16	35	10			
RTEP1616	Φ1600xH1600	2-door, vertical	8.16	35	10			
RTEP1618	Φ1600xH1800	2-door, vertical	8.16	35	10			
RTEP1820	Φ1800xH2000	2-door, vertical 1 door, horizontal	6	40	10			
RTEP2022	Φ2000xH2200	1 door, horizontal	10,12,16	40	10			

REC Customized 订制镀膜设备

Model 型号	Size(mm) 尺寸	Door Configuration 门结构	Application 应用	Coating Technology 镀膜技术	Number of Planetary Rods 行星体转	Evaporation Power(kVA) 蒸发电源	Cycle Time 镀膜周期
RTEP3618	Φ3600xH1800	1 door, vertical	Automotive Logo 汽车广告牌	Resistant Evaporation 电阻式蒸发	1	80	10'~15' depends on substrates
RTEP2215	Φ2200xH1500	1 door, vertical			1	50	
RTEP2525	Φ2500xH2500	1 door, vertical			1	50	
RTEP6638	L6600xH3800	1 door, vertical			1	100	
RTEP0913	Φ900xH1300	1 door, vertical	Medical 医疗	E-Beam Evaporation 电子束蒸发	1	40	10 ~15分, 由产品决定
RTEP1820	Φ1800xH2000	2 door, vertical	Automotive Light 汽车车灯	MF PECVD Polymerization MF PECVD 聚合物制程	6, 8	50	
RTEP1616	Φ1600xH1600	2-door, vertical 1 door, horizontal	EMI & NCVN 电磁屏蔽膜, 真空不导电膜	Resistant Evaporation 电阻式蒸发	12, 16	40	



Key components 设备单元



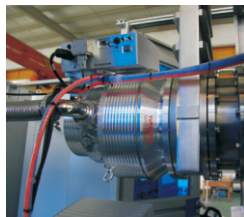
Roughing Pump Package
前级泵



Arc + Rotary
Target Sputtering
弧+柱靶



Arc + Sputtering
Deposition
弧+溅射沉积镀膜



Turbo Molecular Pump
分子泵



Oil Diffusion Pump
扩散泵



Electrical Enclosure
电控系统

MULTI-ARC + MAGNETRON SPUTTERING COATER 多弧+磁控溅射复合离子镀膜设备

上海市松江工业园区松卫北路819号 201613
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Description 描述

RTAC-SP系列真空镀膜机是多弧离子镀与磁控溅射完美结合的复合式镀膜设备。应用于五金件；玻璃、陶瓷工艺品等；电子产品，洁具，手表；高端奢侈品配件件: 箱包拉链，鞋扣件，腰带等。

设备特点：系统稳定，重复性高，维护方便，良品率高。此外，设备弧阴极、溅射阴极安装法兰及离子源安装法兰可根据工艺需求进行互换，保证设备的灵活性和设备升级。

RTAC-SP设备可适用于各种靶材：无论金属还是介质，化合物材料都可以利用此复合工艺进行镀膜。所成膜层具有膜层附着力强，较高硬度，耐磨损，防腐蚀；致密度高，重复度及颜色一致性好等特点。可镀制 铬色，黑色，银色，蓝色，七彩色等。为追求高端质量镀膜产品的供应商提供可靠保证。

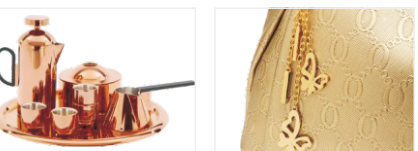
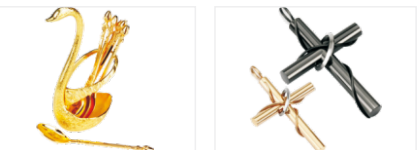
RTAC-SP series coating equipment is a perfect combination of arc plating and sputtering deposition. Applied with hardware, glass and ceramic products, consumer electronics, sanitary appliance and watch, high end luxury products accessories: handbag chains, shoes buttons, belts etc.

Equipment features: ease maintenance, repeatable, stable and high yield throughput. The deposition cathodes (cathode arcs and sputtering cathodes) mounting flanges and ion source mounting flange are exchanged flexibly based on the coating processes demand for a future upgrade.

RTAC-SP coater has no limit on the coating materials: metals, dielectric coating, compound materials all can be deposited. The films are high hardness, excellent corrosion, wear resistance, high density and uniformity.

Coating colors: chrome , black, gold, silver, blue and rainbow colors etc.

RTAC-SP coater ensures manufactures to provide reliable coating quality for theirs customers who are pursuing high-class coating finishing continually.



ASC Standard 标准镀膜设备

Model 型号	Size(mm) 尺寸	Number of Planetary Rods 行星体转轴数量	Cathodic Arc Sources 弧源数量	Sputtering Cathodes 溅射阴极	Ion Source 离子源	Cycle Time 镀膜周期	Bias Power Supply(kVA) 偏压电源
RTAC950-SP	Φ950xH1350 2-door 双开门	3	8	4 Planar 4支平面靶	Linear Anode 线性阳极层		1*36
RTAC1213-SP	Φ1250xH1350 2-door 双开门	48	8	4 Planar 4支平面靶	Linear Anode 线性阳极层	30'~150' depends on substrates 30 ~150分， 由产品决定	1*30, AE
RTAC1250-SP	Φ1250xH1250	6,8,12,16	8	4~8 Cylinder 4~8支柱靶	depends oncoating process and product 取决于产品和 工艺需求		1*36
RTAC1008-SP	Φ1000xH800	3	6	2Cylinder 2支柱靶			1*24

ASC Customized 订制镀膜设备

Model 型号	Size(mm) 尺寸	Number of Planetary Rods 行星体转轴数量	Cathodic Arc Sources 弧源数量	Sputtering Cathodes 溅射阴极	Ion Source 离子源	Cycle Time 镀膜周期	Bias Power Supply(kVA) 偏压电源
RTAC0808-SP	Φ800xH800	6.8	4	2~4 Cylinder or Planar 2~4平面或柱靶	Linear Anode 线性阳极层	30'~150'depends on substrates 30 ~150分， 由产品决定	2*48
RTAC1315-SP	Φ1300xH1500	24	6~9	2~8 Cylinder or Planar 2~8平面或柱靶	Linear Anode 线性阳极层		1*48

VACUUM COATER COMPONENTS 真空镀膜设备配件

PowerIon-C Series Plasma Sources



Key Features

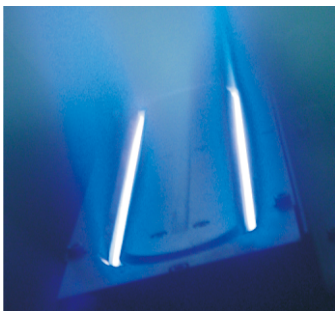
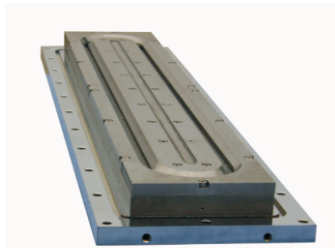
- Contamination free anode construction
- Arc-free discharging
- High plasma density output
- Special water cooling system

Applications

- Optical coating
- Hard coating
- DLC thin film deposition
- Textiles surface activation

Product	Powerlon-C-8A	Powerlon-C-10A	Powerlon-C-15A
Discharge voltage	40-300V	40-300V	40-150V
Max. discharge current	8A	10A	15A
Max. Ion current	2.6A	3.3A	5A
Filament current	40A	40A	40A
Min. operating pressure	$<4 \times 10^{-2}$ Pa	$<4 \times 10^{-2}$ Pa	$<4 \times 10^{-2}$ Pa
Cooling water	2L/min@50psi	2L/min@50psi	4L/min@50psi
Adjustable direction	$\pm 30^\circ$	$\pm 30^\circ$	$\pm 30^\circ$
Dimensions (mm)	$\varnothing 153 \times 254$ (H)	$\varnothing 153 \times 254$ (H)	$\varnothing 168 \times 254$ (H)

ActiveGas-ALS Series Anode Layer Plasma Sources



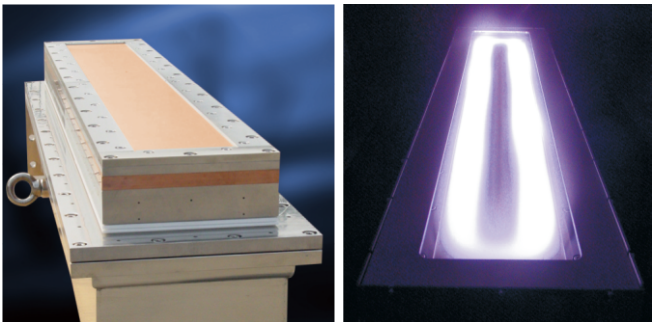
Key Features

- Reliable water cooling configuration
- High voltage tolerant
- Contamination free design
- Excellent uniformity
- MF power supply driving mode

Applications

- R2R web coaters
- In-line deposition systems
- Batch coaters
- Applications include optical films, hard coating, functional and decorative thin films, and textiles

Product	ActiveGas-ALS (rectangular)	ActiveGas-ALS (circular)
Max. discharge voltage	1500V	1500V
Max. discharge current	$> 15\text{mA/cm}$	$> 15\text{mA/cm}$
Ion energy	50~800eV	50~800eV
Operating pressure	$5 \times 10^{-2} \sim 1.0$ Pa	$5 \times 10^{-2} \sim 1.0$ Pa
Cooling water	5L/min	2L/min
Dimensions (mm)	145W@L<390 / 160W@L>400	$\varnothing 114 \times 130$ (H)



ProMag-L Series Magnetron Sputtering Sources

Key Features

- Finite element magnetic field design
- Magnet isolated from cooling water
- Compatible with DC/MF and RF power supplies
- High target utilization
- High power density
- Balanced and unbalanced mode choice

Maximum Sputtering Power	
Indirect Cooled target	$> 20 \text{ Watts / cm}^2$ (DC) $> 7 \text{ Watts / cm}^2$ (RF)
Discharge Voltage	100 to 1500 volts
Discharge Current	$> 0.05 \text{ amps / cm}^2$
Operating Pressure	0.05 to 5.0 Pa
Target utilization	$> 35\%$
Target	
Form	Rectangular/ Planar
Thickness	6mm~16mm
Width	125mm
Installation	Internal/external

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