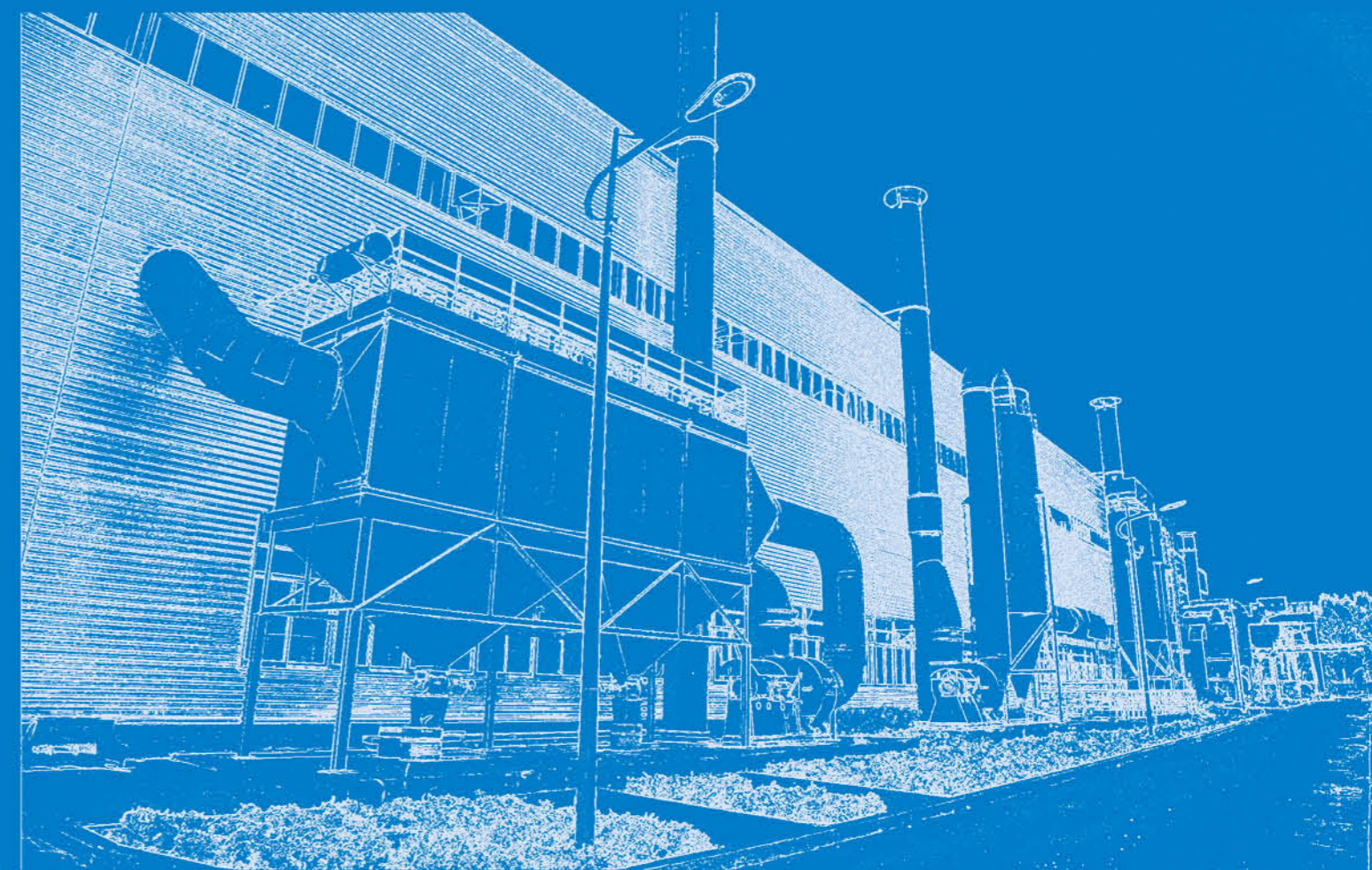


环保除尘设备

ENVIRONMENTAL PROTECTION DUST-REMOVAL EQUIPMENT



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济南二机床集团有限公司
JIER Machine-Tool Group Co.,Ltd.

地址：山东省济南市机床二厂路2号
Address: 2 Jichuang Erchang Road, Jinan 250022, Shandong, China

电 话 Tel: (0531) 81617505, 81617508 (市场营销部 Market engineering dept.)
(0531) 81617512 (产品技术部 Product developing dept.)
(0531) 81617503 (综合管理部 General administration dept.)

传 真 Fax: (0531) 87188149
电子邮箱 E-mail: fdmc@jiermt.com
网 址 Web: <http://www.jiermt.com>

济南二机床集团有限公司
JIER Machine-Tool Group Co.,Ltd.

公司简介 Profile of Company

■ 中国济南二机床集团有限公司是中国规模最大的重型锻压设备和大型金属切削机床制造企业，国内主要数控机床产业化基地之一，也是当今世界上最大的机械压力机制造公司之一。企业的技术开发实力、装备水平和生产能力、产品品种和技术水平等各方面多年来均位于国内同行业的首位。

■ 济南二机床集团有限公司下属12个专业化公司，企业的技术中心系“国家级技术中心”，具有独立而强大的技术开发实力及制造能力，质量管理及保证体系健全并通过DNV国际质量体系认证。主要产品为各种锻压设备、金属切削机床（数控机床）、自动化成套设备、数控切割设备、铸造机械设备、环保成套设备等六大类，以重型机械压力机为代表的主导产品在国际市场上具有较大的影响力和知名度，产品行销世界50多个国家和地区。

■ 济南二机床集团有限公司铸造与切割设备公司是从事铸造设备产品开发、设计、制造与营销的专业化公司，在加强铸造落砂除尘系统、砂再生除尘系统、浇注冷却除尘系统、铸件清理打磨除尘系统的同时，又在焊接烟尘治理系统、切割烟尘治理系统、淬火油雾治理系统、喷漆除味治理系统等各领域实现了快速发展。所生产的各类除尘设备及清理设备等。产品在机床、冶金、有色金属、新能源、汽车、军工、造船、电机、工程机械等制造行业得到广泛应用，产品和服务深受用户好评。

■ 公司拥有一支强大的技术队伍，具有很高的技术开发能力，可以为用户提供铸造车间的规划改造设计、工艺设计、施工设计、非标设计，以及铸造行业的其它各种技术咨询服务；可提供产品开发设计制造、安装调试以及工艺生产的“交钥匙”工程服务。



■ JIER Machine-Tool Group Co. Ltd., China is the largest-scale heavy-duty forging equipment and large-scale metal-cutting machine manufacturer. It is one of the CNC machine industrialization bases in China and one of the largest mechanical press manufacturers in the world. Its technical R&D ability, equipment level, production capability, product kinds and technical level have been ranked on top in the same industry in China.

■ There are 12 professional companies affiliated to JIER Group. Its technical center is a “State-level Technical Center” which has independent and powerful technical R&D and fabrication ability. The quality management and control system is sound and approved by DNV International Quality Certification System. Main products are of six categories, such as metal-forming equipment, metal cutting machine (CNC machine), press auto-

mation system, CNC cutting equipment, foundry machinery, and environment protection equipment etc, among which the leading product is the heavy-duty mechanical press with greater notability and popularity in the international market. The products have been marketed in more than 50 countries and regions.

■ JIER Foundry & Cutting Equipment Company is a professional company specialized in the R&D, design, manufacturing and marketing of foundry machinery products. Except for enhancing the dust-removal systems for foundry sand shakeout, sand reclamation, pouring cooling and casting cleaning/grinding operations, our disposal systems for welding fume, cutting fume, quenching oil mist and painting odor-removal have been grown

rapidly. Our dust-removal and cleaning equipment have been used extensively in manufacturing industry such as machine tool, metallurgy, non-ferrous metal, new energy, automobile, war industry, shipbuilding, motor, engineering machinery etc., and our products and service have been praised by the customers.

■ JIER Foundry & Cutting Equipment Company owns a powerful technology team who has high R&D ability, can provide customers with planning and retrofit design, technological design, construction design, non-standard design in the foundry workshop, and the other technical consultation services in the foundry industry. It can provide product R&D, design, manufacturing, installation and commissioning, and Turnkey Project service for process production.

综合制造实力 Comprehensive Manufacturing Strength



先进的自动焊设备
Advanced automatic welding device



拥有数十台大型、重型数控机床和龙门式加工中心
Tens of large-scale heavy-duty CNC machine tools and gantry machining center



国家级技术中心
State-level technical center



济南二机床集团有限公司生产区一角
Aerial view of JIER Group production area



区域固定式除尘系统
Regional stationary type dust-removal system



浇注除尘系统
Pouring dust-removal system



再生与浇注冷却除尘系统
Regeneration and pouring cooling dust-removal system



砂处理线除尘系统
Sand processing line dust-removal system

JIER高负压切割机烟尘净化器

JIER High Negative Pressure Cutting Machine Soot Purifier

特点、用途及组成 Features, Application and Composition

高负压切割机烟尘净化器专为切割机而设计的净化装置，具有净化效率高、噪声低、使用灵活、占地面积小等特点，操作方便。广泛应用于火焰切割机、等离子切割机等切割作业中产生烟尘净化。

主要由吸尘罩、耐高温阻燃管、滤筒、沉灰抽屉、风机、反吹系统、电控系统等组成。

The High Negative Pressure Cutting Machine Soot Purifier is a purifier designed especially for cutting machine, with features of high purification efficiency, low noise, flexible usage, less occupation area, and easy operation. It is extensively used for purification of soot generated in the cutting operations such as flame cutting machine, plasma cutting machine etc.

It is mainly composed of dust suction hood, high temperature flame retardant tube, filter cartridge, dust deposit drawer, blower, back blowing system, and electrical control system etc.



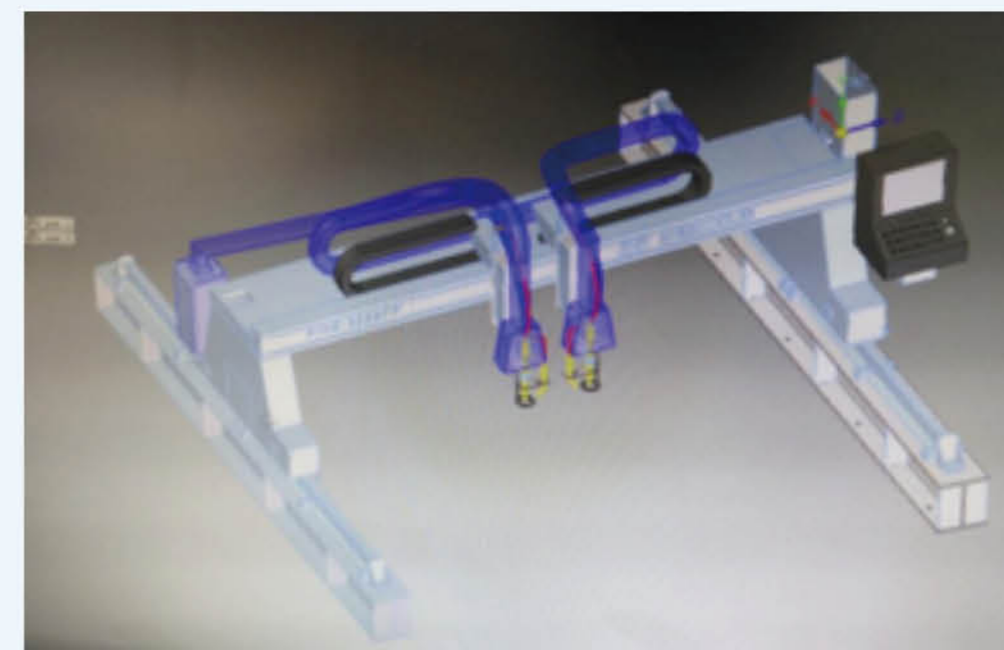
主要参数 Main Parameters							
电源要求 Power supply	处理风量 Air volume to be disposed	装机功率 Installed power	过滤面积 Filtering area	清灰方式 Dust cleaning mode	压缩空气要求 Compressed air	净化效率 Purification efficiency	噪音 Noise
380V/50HZ	最大流量265m ³ /h, 最高负压17000Pa, 最高正压18000Pa, 负压12000Pa时, 风量≥200m ³ /h Max. flow 265m ³ /h, highest negative pressure 17000Pa, highest positive pressure 18000Pa, and negative pressure 12000Pa, the air volume is ≥200m ³ /h.	1.6kw	10m ²	脉冲反吹清灰 Clean dust by pulse back blowing	0.4~0.6Mpa	≥99%	≤80dB

工作原理 Working Principle

切割过程中产生的烟尘通过高负压泵吸力作用，经吸烟罩、耐高温阻燃管吸入设备进风口，设备进风口处设有阻火网，火花经阻火网被阻留，烟尘气体进入沉降室，利用重力与上行气流，首先将粗粒尘直接降至沉灰抽屉，微粒烟尘被滤筒捕集在外表面，洁净气体经滤筒过滤净化后，由滤筒中心流入洁净室，洁净空气经消音出风口排出。

The soot generated in the process of cutting operation, by means of the suction of high negative pressure pump, via the soot suction hood and high temperature-resistance flame retardant tube, is suctioned in the air inlet of the equipment. A fire resistance mesh is provided at the inlet where any spark will be shielded; the soot gas goes into the deposit chamber, by means of the gravity and upward airflow, the coarse particle dust is deposited directly in the dust deposit drawer, and the fine particle soot is captured

on the outside surface by the filter cartridge; the clean gas, after filtration and purification by the cartridge, goes into the clean chamber from the cartridge center, and finally, is exhausted via a muffler air outlet.



JIER移动式烟尘净化器

JIER mobile soot purifier

特点、用途及组成 Features, Application and Composition

移动式烟尘净化器专为工业焊接烟尘和轻质颗粒而设计的净化装置，具有净化效率高、噪声低、使用灵活、占地面积小等特点，操作方便。广泛应用于焊接、抛光、切割、打磨等工序中产生烟尘和粉尘的净化，尤其适用于电弧焊、二氧化碳保护焊、气熔割等产生烟气的作业场所。

主要由吸尘罩、万向吸气臂、滤筒、沉灰抽屉、风机、反吹系统、电控系统等组成。

The Movable Soot Purifier is a purifier designed especially for the industrial welding soot and light-weight particles, with features of high purification efficiency, low noise, flexible usage, less occupation area, and easy operation. It is extensively used for purification of soot or dust generated in the process of welding, polishing, cutting or grinding etc., especially in the operation field where fume is generated such as arc welding, CO₂ arc welding, gas melt cutting operations.

It is mainly composed of dust suction hood, universal suction arm, filter cartridge, dust deposit drawer, blower, back blowing system, and electrical control system etc.

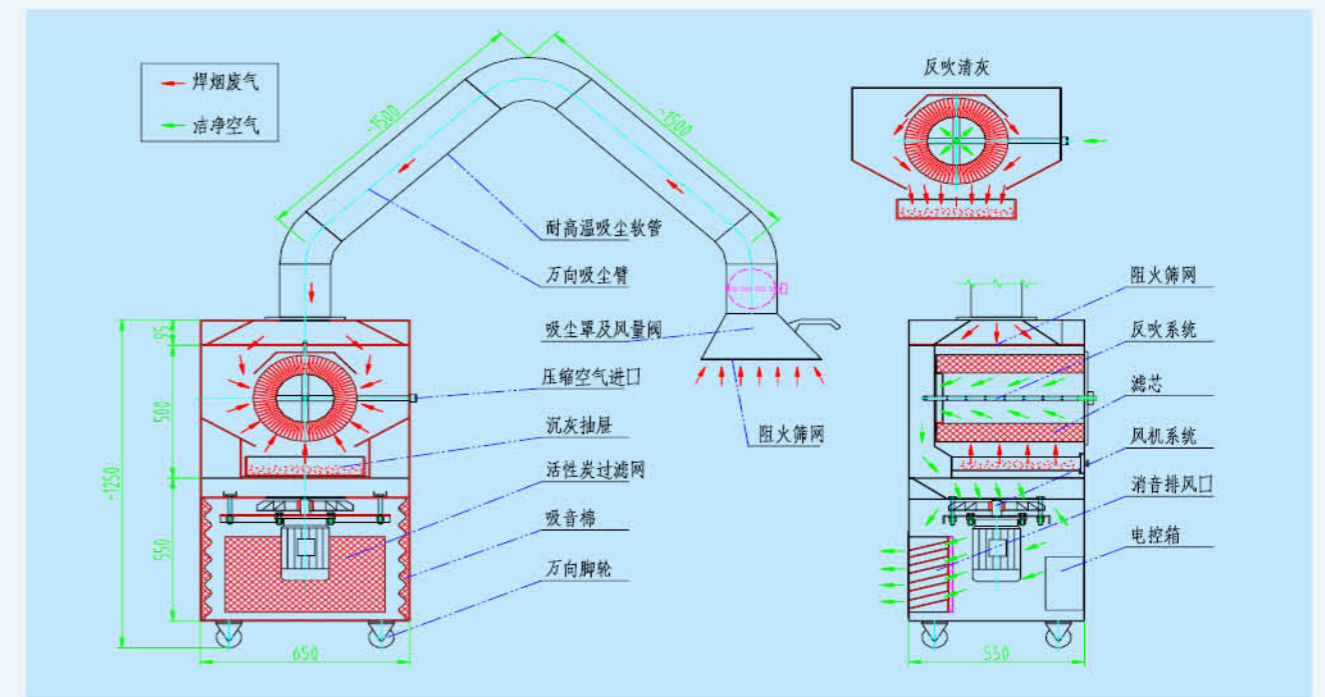


主要参数 Main Parameters								
电源要求 Power supply	处理风量 Air volume to be disposed	吸气臂规格 Suction arm	装机功率 Installed power	过滤面积 Filtering area	清灰方式 Dust cleaning mode	压缩空气要求 Compressed air	净化效率 Purification efficiency	噪音 Noise
380V/50HZ	1000m ³ /h	φ160mm*3000mm	2.2kw	10m ²	手动清灰、脉冲反吹清灰 Clean dust manually or by pulse back blowing	0.4~0.6Mpa	≥99%	≤80dB

工作原理 Working Principle

焊接、抛光、切割、打磨等工序中产生烟尘和粉尘通过风机引力作用，经万向吸气臂的吸尘罩吸入设备进风口，设备进风口处设有阻火网，火花经阻火网被阻留，烟尘气体进入沉降室，利用重力与上行气流，首先将粗粒尘直接降至沉灰抽屉，微粒烟尘被滤筒捕集在外表面，洁净气体经滤筒过滤净化后，由滤筒中心流入洁净室，洁净空气经消音出口排出。

The soot or dust generated in the process of welding, polishing, cutting or grinding operation, by means of the blower gravity, via the dust suction hood of universal suction arm, is suctioned in the air inlet of the equipment. A fire resistance mesh is provided at the inlet where any spark will be shielded; the soot gas goes into the deposit chamber, by means of the gravity and upward airflow, the coarse particle dust is deposited directly in the dust deposit drawer, and the fine particle soot is captured on the outside surface by the filter cartridge; the clean gas, after filtration and purification by the cartridge, goes into the clean chamber from the cartridge center, and finally, is exhausted via a muffler air outlet.



JIER高负压自动焊机烟尘净化器

JIER Auto High Negative Pressure Welding Machine Soot Purifier

特点、用途及组成 Features, Application and Composition

高负压自动焊机烟尘净化器专为自动焊接机器人而设计的净化装置，具有净化效率高、噪声低、使用灵活、占地面积小等特点，操作方便。广泛应用于各种焊接作业过程中产生烟尘净化。

主要由吸尘罩、耐高温阻燃管、滤筒、沉灰抽屉、风机、反吹系统、电控系统等组成。

The Auto High Negative Pressure Welding Machine Soot Purifier is a purifier designed especially for auto welding robot, with features of high purification efficiency, low noise, flexible usage, less occupation area, and easy operation. It is extensively used for purification of soot generated in welding operations.

It is mainly composed of dust suction hood, high temperature-resistance flame retardant tube, filter cartridge, dust deposit drawer, blower, back blowing system, and electrical control system etc.

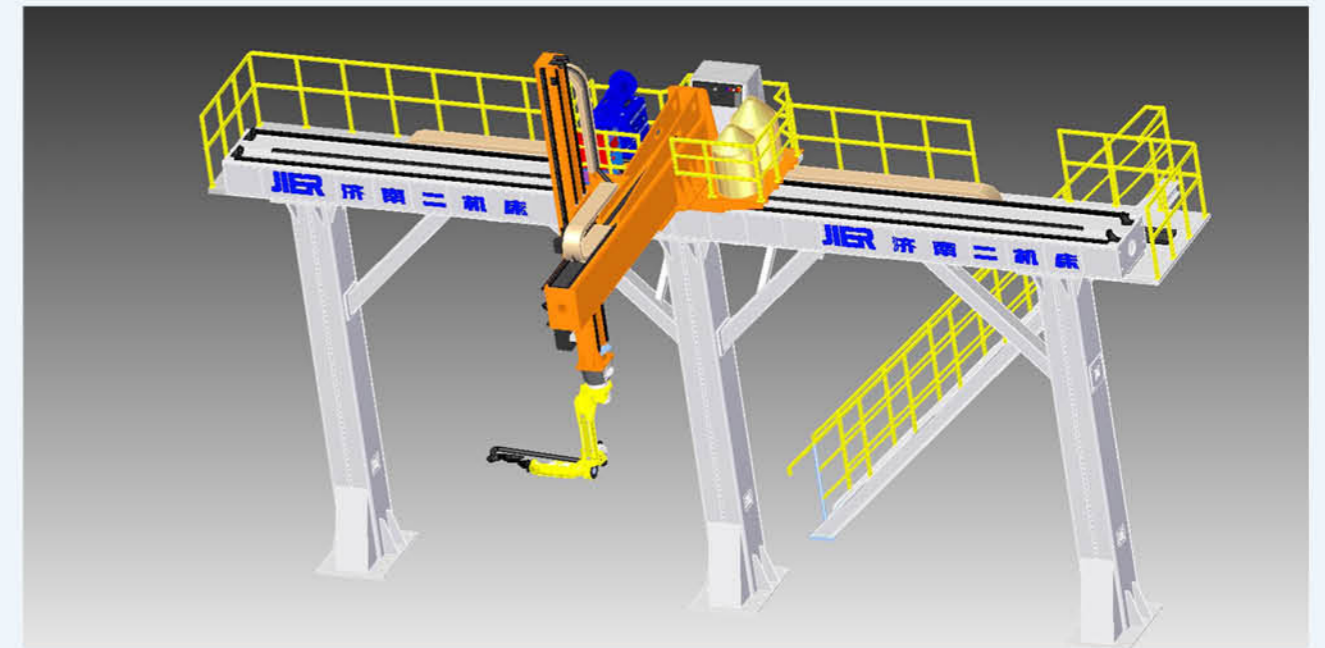


主要参数 Main parameters							
电源要求 Power supply	处理风量 Air volume to be disposed	装机功率 Installed power	过滤面积 Filtering area	清灰方式 Dust cleaning mode	压缩空气要求 Compressed air	净化效率 Purification efficiency	噪音 Noise
380V/50HZ	最大流量530m ³ /h, 最高负压30000Pa, 最高正压30000Pa, 负压20000Pa时, 风量≥320m ³ /h Max. flow 530m ³ /h, highest negative pressure 30000Pa, highest positive pressure 30000Pa, and negative pressure 20000Pa, the air volume is ≥320m ³ /h.	5.5kw	10m ²	脉冲反吹清灰 Clean dust by pulse back blowing	0.4~0.6Mpa	≥99%	≤80dB

工作原理 Working Principle

焊接过程中产生的烟尘通过高负压泵吸力作用，经吸烟罩、耐高温阻燃管吸入设备进风口，设备进风口处设有阻火网，火花经阻火网被阻留，烟尘气体进入沉降室，利用重力与上行气流，首先将粗粒尘直接降至沉灰抽屉，微粒烟尘被滤筒捕集在外表面，洁净气体经滤筒过滤净化后，由滤筒中心流入洁净室，洁净空气经消音出风口排出。

The soot generated in the process of cutting operation, by means of the suction of high negative pressure pump, via the soot suction hood and high temperature-resistance flame retardant tube, is suctioned in the air inlet of the equipment. A fire resistance mesh is provided at the inlet where any spark will be shielded; the soot gas goes into the deposit chamber, by means of the gravity and upward airflow, the coarse particle dust is deposited directly in the dust deposit drawer, and the fine particle soot is captured on the outside surface by the filter cartridge; the clean gas, after filtration and purification by the cartridge, goes into the clean chamber from the cartridge center, and finally, is exhausted via a muffler air outlet.



JIER淬火油雾治理系统

JIER Quenching Oil Mist Disposal System

特点、用途及组成 Features, Application and Composition

工件在浸入淬火油时出现不完全燃烧现象，会产生黑色的气体，同时伴随一些颗粒混合物，有较大刺激气味，易致癌。淬火油雾治理系统是专门对工件油淬时产生的高温油雾进行捕捉、收集、分离的环保设备。主要由集烟罩、洗涤塔、净化器、油水分离装置、离心风机、除尘烟囱、电控系统等组成。

When workpiece is dipped in the quenching oil, incomplete burning possibly occurs, black gas may be generated, in the meanwhile, some particles mixture may be generated which has strong irritating odor and is cancerogenic. The Quenching Oil Mist Disposal System is an environmental protection device designed especially for capture, collection and separation of the high temperature oil mist generated in the process of workpiece oil quenching. It is mainly composed of fume collection hood, washing tower, purifier, oil/water separator, centrifugal blower, dust-removal chimney, and electrical control system.



工作原理 Working Principle

淬火过程中产生的油烟，由集烟罩收集后，通过风管经洗涤塔或静电净化器处理，把废气中的油烟等去除，并通过油水分离设备分离。净化后的废气达到排放标准后直接通过风机经排气筒直接排放。

Lampblack generated in quenching process, after collected by fume collection hood, is disposed via air line, washing tower or static purifier to remove the lampblack in the exhaust gas, and is separated via the oil/water separator. The exhaust gas can't be discharged directly by the blower via exhaust cylinder until up to discharge standard after being purified.



JIER环保喷漆房

JIER Environmental Protection Painting House

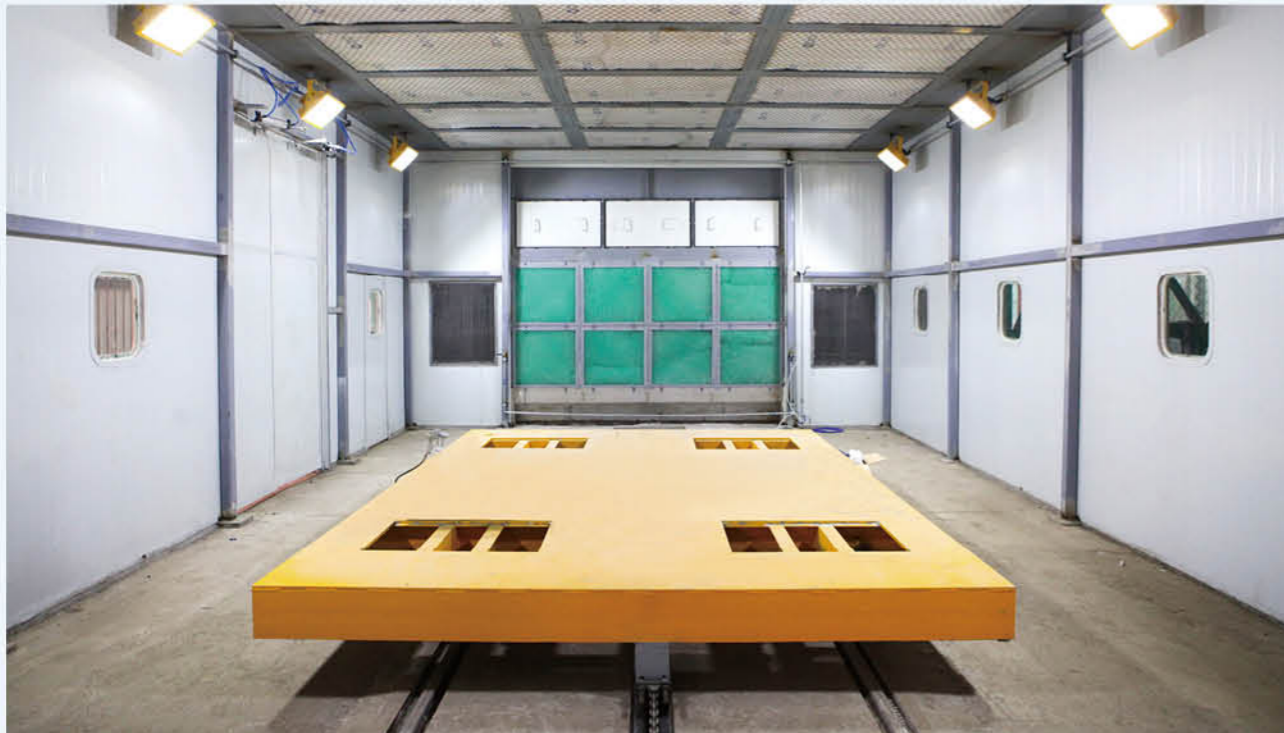
特点、用途及组成 Features, Application and Composition

环保喷漆房专为工业涂装作业而设计的专用设备，能满足涂装作业对温度、湿度、光照度、空气洁净度等要求，能将喷漆作业时产生的漆雾及有机废气限制并处理后排放，是环保型的涂装设备。可根据需要配置活性炭催化再生装置，能够有效延长活性炭使用寿命及减少危废产生量。喷漆房内可根据需要配置三维操作平台，具有前后、左后及上下行走功能，便于操作工人对工件各个部位进行喷漆作业。

主要由房体、空气分配室、排风系统、漆雾处理系统、烘干系统、脱附再生系统、照明系统、安全报警系统、电气控制系统等组成。

The Environmental Protection Painting House is special equipment designed especially for industrial painting operation; can meet the temperature, humidity, illuminance, air purity requirements of painting operation; limits and discharges after treatment the paint mist and organic waste gas generated in the process of painting operation; and is an environmental protection type painting equipment. Upon request, activated carbon catalytic regeneration device can be available which can prolong effectively the service life of activated carbon and reduce the hazardous waste output. The house can be equipped with 3D operating platform, if necessary, with walking function in front/rear, left/right and up/down directions, so it's easy for operator to paint the workpiece at each point.

It's mainly composed of a house body, air distributor chamber, ventilation system, paint mist disposal system, drying system, desorption regeneration system, lighting system, safety warning system, and electrical control system etc.



主要形式 Main Types

固定式、伸缩式、房体移动式、台车移动式等。Stationary type, telescopic type, house body moving type, and cart moving type etc.

工作原理 Working principle

喷漆时产生的过喷漆雾通过干式过滤器或水幕过滤器将大颗粒漆雾和部分粘性物质截留在漆雾过滤棉或水幕循环水中，经过初级过滤的废气再经过过滤棉、过滤袋的进一步过滤，将剩余的漆雾微粒和尘埃粒子拦截下来，处理后的气体再经过后续UV光解氧化设备和活性炭吸附设备等化学、物理处理手段进行净化，能够有效去除挥发性有机物（VOCs）等主要污染物，最终达标排放。

喷漆后，通过烘干机组对房体内空气进行加热，对工件进行烘干作业，烘干过程中由可燃气体报警装置和探测器对房体内可燃气体浓度进行检测，当可燃气体报警装置报警时，系统自动断开相应设备的电源，并自动启动排风机将可燃气体排出室外，确保生产安全。

The over-spray paint mist generated in the process of painting operation goes through the dry filter or water curtain filter, the large grain of paint mist and partial sticky material will be trapped in the paint mist filter cotton or water curtain recycle water. The exhaust gas after primary filter goes through the filter cotton/filter bag for further filtration, the remaining paint mist fine particles and dust particles will be held back. The gas after disposal is purified further by the chemical and physical means in the consequent UV photolysis oxidation equipment and activated carbon absorption equipment etc. to remove effectively the main pollutants such as Volatile Organic Compounds (VOCs), and finally, reaches up to standard for discharge.

After painting, the air in the house body will be heated via drying machine set, the workpiece is dried, in the process of drying operation the combustible gas concentration in the body will be detected via a combustible gas warning device and detector, so when a warning signal is given, the system will shut off the corresponding power supply of device and the air exhaust blower will start automatically to discharge the combustible gas outdoor for safe production.

