

# Industrial Dust Professional Solutions

Applicable to PCB, Semiconductor, Glass Panel, Photovoltaic, Lithium Battery New Materials, Coatings, Food, Chemical, Rubber, Automotive Parts, and other industries.

Cartridge Dust Collector

VOCs Activated Carbon Adsorption Device

Vacuum Cleaning Dust Collector

Sintered Plate Dust Collector
 Baghouse Dust Collector

High-Pressure Casting Blower



# 苏州丰土环保科技有限公司 Suzhou Fengtu Environmental Technology Co. Ltd



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### Company Profile

► Suzhou Fengtuh Environmental Protection Technology Co., Ltd. is a modern enterprise specializing in the research and development, design, manufacturing, and service of air pollution control equipment.

▶ Suzhou Fengtuh Environmental was established in August 2014, and Chengdu Fengkun Environmental was founded in 2023. The combined factory area covers approximately 5,000 square meters, with a production team of 50 skilled technicians, multiple professional design engineers, and a dedicated installation and after-sales service team. Our business spans across the entire country.

► Main products include: pulse jet bag dust collectors, cartridge dust collectors, PE sintered plate dust collectors, vacuum cleaning dust collectors, compact integrated dust collectors, VOCs activated carbon adsorption units, and multi-stage high-pressure casting fans.

► We have successfully served industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and auto parts. We specialize in the collection and purification of pollutants generated during industrial processes, such as dust, acidic/ alkaline waste gas, VOCs, oil mist, and odors. The purified exhaust gases fully comply with the latest environmental emission standards.











#### Exhaust Gas Emission Test Report

Emission Standards Based On: Emission Standard of Pollutants for Battery Industry" (GB30483-2013), Tables 5 and 6



#### Patent Certificate And Qualification

- 1. Patent Certificate for Circulating Self-Cleaning Sintered Plate Dust Collector
- 2. Patent Certificate for Vacuum Dust Collector for Monocrystalline Furnace
- 3. Patent Certificate for Silane Combustion Explosion-Proof Cartridge Dust Collector
- 4. Patent Certificate for Pulse Jet Bag Dust Collector

5. High and New Technology Enterprise Certificate

6. Patent Certificate for Multi-Stage High-Pressure Casting Fan

- 7. Grade II Professional Contracting Qualification for Building Mechanical and Electrical Installation Engineering
- 8. Grade II Professional Contracting Qualification for Environmental Protection Engineering
- 9. Patent Certificate for Two-Stage Activated Carbon Adsorption Box Device

10. Work Safety Permit

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<	实用新型名称:一种污泥干化缬尘气冷却分离设备	实用新型名称;一种布风均匀的布袋除尘器	实用新型名称: 一种多层式弹矩式滤筒除尘器	实用新版名称:一种防爆防燃型除尘器
1	发明人;胡鼎	夏 明 人,罗晓州	发明人:罗晓刚	发明人,罗晓丽
1	专利号, 21. 2019 2 1803151.5	#1 - 9, 21, 2021 2 1635302.8	专利 号: 71. 2021 2 1643151.0	专利 号: ZL 2021 2 1635326.3
	专利申请日:2019年10月22日	·양·제(中내)[1], 2021 약(07.)] 19-[1	专利申请曰: 2021年07月19日	专利申请日, 2021年07月19日
14	专 利 权 人: 保圳市亚洁环保设备有限公司	专利 权 人:      苏州本土环保科技有限会司	· • 利 权 人: 苏州丰土环保科技有限公司	





















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#### Industrial Dust Collector Series





Controidere Duct Collectore





Partner Clients



































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# Cartridge Dust Collector



Dimensions	Overall dimensions are customized based on the actual air handling capacity			
Main Material	SS41/SUS304			
Shell Plate Thickness	4.5t/mm, 6.0t/mm, with surface reinforcement design			
Number of Main Compartments	1 to N compartments (number of compartments can be adjusted as needed).			
Filter Cartridge Perforated Plate	Manufactured using laser cutting technology			
Body Coating 1. After pickling the plates, spray painting and baking are applied; Epoxy acid alkali-resistant lining is applied as required by the process. 2. Sandblasting treatment followed by Epoxy acid and alkali-resistant lining as by the process.				
Air Inlet Design	Side or top openings (depending on the actual site conditions)			
Dust Collection Method	Each compartment is designed with an independent discharge port (including manual/ automatic discharge valve + pressure plate ash bucket, no need to stop the machine).			
Filter Material	100% Spunbond Polyester Media with P.T.F.E Coating, anti-static treatment.			
Filter Dimensions	DN350*660mmL/DN13.8" *26"			
Filter Operating Temperature Range	Room temperature			
Filtration Precision	99.98% @ 0.3-3micron			
Process Flow	Powder Collection—》Large Particle Settling—》Fine Dust Filtration—》 Pulse Reverse Cleaning—》Dust Concentration and Packaging—》Compliance Emission			
Pulse Compressed Air Requirements	90-100psig or 6-7KGs/cm2			
Standard Configuration	1、Filter Cartridge + Venturi Tube + Triangular Bracket 2、Solenoid Valve & Diaphragm Valve Set 3、Reverse Cleaning Sequence Controller / PLC Program Controller 4、Differential Pressure Indicator 5、Pressure Plate Movable Ash Storage Bucket			
Optional Configuration	<ol> <li>Screw Conveyor Valve 2, Rotary Discharge Valve 3, Two-Stage Automatic Discharge Valve</li> <li>Pneumatic Single-Stage Gate Valve 5, Pneumatic Butterfly Valve 6, Powder Level Sensor</li> <li>High-Pressure Reverse Cleaning Air Pressure Insufficiency Alarm</li> <li>Automatic Differential Pressure Transmitter (4 - 20 mA Output) 9, Various Mechanical</li> <li>Vacuum Gauges 10, Explosion Relief Panel, Explosion Isolation Valve, Pipeline Fire Damper</li> <li>Chimney Dust Emission Monitor</li> </ol>			
Industry Applications	Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and automotive parts.			



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# Baghouse Dust Collector





Dimensions	Overall dimensions are customized based on the actual air handling capacity
Main Material	SS41/SUS304
Shell Plate Thickness	3.0t/mm, 4.0t/mm, with surface reinforcement design
Number of Main Compartments	1 to N compartments (number of compartments can be adjusted as needed).
Filter Bag Perforated Plate	Manufactured using laser cutting technology (ensures no leakage of fine dust)
Body Coating	<ol> <li>After pickling the plates, spray painting and baking are applied; Epoxy acid and alkali-resistant lining is applied as required by the process</li> <li>Sandblasting treatment followed by Epoxy acid and alkali-resistant lining as required by the process</li> </ol>
Air Inlet Design	Side-in side-out or bottom-in top-out (depending on actual site conditions)
Dust Collection Method	Each compartment is designed with an independent discharge port (including manual/automatic discharge valve + pressure plate ash bucket, allowing non-stop operation).
Filter Bag Dimensions	Standard diameters: DN130mm, DN140mm, DN150mm;Filter bag length ranges from 800mm to 4800mm
Filter Bag Material	100% Spunbond Polyester Media with P.T.F.E Coating, anti-static treatment
Filter Operating Temperature Range	$40^\circ\!\mathrm{C}$ to $280^\circ\!\mathrm{C}$ — different filter bag materials are selected based on actual operating temperature conditions
Filtration Precision	99.98% @ 0.5-5 microns
Process Flow	Process Powder Collection—》Large Particle Settling—》Fine Dust Filtration—》 Pulse Reverse Cleaning—》Dust Collection and Packaging—》Compliant Emission
Pulse Compressed Air Requirements	90-100 psig or 6-7 kg/cm²
Standard Configuration	1、Filter Cartridge + Venturi Tube + Triangular Bracket 2、Solenoid Valve & Diaphragm Valve Set 3、Reverse Cleaning Sequence Controller / PLC Program Controller 4、Differential Pressure Indicator 5、Pressure Plate Movable Dust Collection Bucket
Optional Configuration	1. Screw Conveyor Valve 2. Rotary Discharge Valve 3. Two-Stage Automatic Discharge Valve 4. Pneumatic Single-Stage Gate Valve 5. Pneumatic Butterfly Valve 6. Powder Level Sensor 7. Anti-Bridging Device 8. High-Pressure Reverse Cleaning Air Pressure Insufficiency Alarm 9. Automatic Differential Pressure Transmitter (4 - 20 mA Output) 10. Various Mechanical Vacuum Gauges 11. Explosion Relief Panel, Explosion Isolation Valve, Pipeline Fire Damper 12. Chimney Dust Emission Monitor 13. Temperature/Pressure Sensors
Industry Applications	Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and automotive parts.



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#### PE Sintered Plate Dust Collector



Dimensions	Overall dimensions are customized based on the actual air handling capacity					
Main Material	SS41/SUS304					
Shell Plate Thickness	4.0t/mm with surface reinforcement design					
Filter Plate Mounting Panel Thickness	8-10mmt					
Filter Plate Perforated Sheet	Manufactured using laser cutting technology (ensures no leakage of fine dust)					
Body Coating	<ol> <li>After pickling the plates, spray painting and baking are applied; Epoxy acid and alkali-resistant lining is applied as required by the process</li> <li>Sandblasting treatment followed by Epoxy acid and alkali-resistant lining as required by the process</li> </ol>					
Air Inlet Design	Side-in side-out or bottom-in top-out (depending on actual site conditions)					
Dust Collection Method	Each compartment is designed with an independent discharge port (including manual/automatic discharge valve + pressure plate ash bucket, allowing non-stop operation).					
Sintered Plate Material	A sintered thin-layer plate is formed by uniformly applying an adsorbent (silica gel or alumina) and glass powder onto a glass plate, then sintering in a high-temperature furnace. The surface is treated with an anti-static coating.					
Sintered Plate Dimensions	Standard size: W550 $\times$ H62 $\times$ L1500 mm - 9-nozzle pulse cleaning					
Filter Operating Temperature Range	$40^\circ\!\!\mathbb{C}$ to $120^\circ\!\!\mathbb{C}$ — different filter materials are selected based on actual working temperature conditions.					
Filtration Precision	99.98% @ 0.2-2 microns					
Process Flow	Process Powder Collection—》Large Particle Settling—》Fine Dust Filtration—》 Pulse Reverse Cleaning—》Dust Collection and Packaging—》Compliant Emission					
Pulse Compressed Air Requirements	60-80 psig or 4-5 kg/cm²					
Standard Configuration	1、Solenoid Valve & Diaphragm Valve Set 2、Reverse Cleaning Sequence Controller / PLC Program Controller 3、Differential Pressure Indicator 4、Pressure Plate Movable Ash Storage Bucket					
Optional Configuration	<ol> <li>Screw Conveyor Valve 2, Rotary Discharge Valve 3, Two-Stage Automatic Discharge Valve 4, Pneumatic Single-Stage Gate Valve 5, Pneumatic Butterfly Valve 6, Powder Level Sensor 7, High-Pressure Reverse Cleaning Air Pressure Insufficiency Alarm 8, Automatic Differential Pressure Transmitter (4 - 20 mA Output)</li> <li>Various Mechanical Vacuum Gauges 10, Explosion Relief Panel, Explosion Isolation Valve, Pipeline Fire Damper 11, Chimney Dust Emission Monitor</li> </ol>					
Industry Applications Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, libratery new materials, coatings, food, chemicals, rubber, and automotive parts.						



### Vacuum Cleaning Dust Collector



Ainflow Dongo 0500~1000000

Airflow Range	irflow Range 2500~10000CMH	
Vacuum Range	10000~30000pa	
Power	15kw~110kw	
Housing Material	FC-25, Thickness 12 - 22 mmT	
Impeller Material	Aluminum Alloy Die-Casting, Thickness 7-12 mmT	
Accessories	Inlet Check Valve, Vacuum Relief Valve, Outlet Flexible Connector, Spring-Type Vibration Isolators	
Industry Applications	Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and automotive parts	

#### FT-SD Series Pulse Jet Industrial Dust Collector

# Performance Features

#### Pulse Jet System

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• Utilizes compressed air to perform pulsejet cleaning for each filter cartridge, creating a reverse airflow opposite to the dust-laden airflow to remove dust from the surface of the filter cartridges. The pulse jet cleaning system has strong cleaning power and maintains high filtration efficiency.

#### High-Efficiency Membrane Filter Cartridges

• Equipped with "PTFE" membrane filter cartridges, which provide excellent filtration efficiency for ultra-fine particles as small as 0.3 µm.

• Uses a vertical installation method to reduce the



equipment's footprint and effectively prevent dust accumulation that could damage or block the filter surface.

#### Applicable Working Conditions

Suitable for general fine dust industries such as battery production, mixing, packaging, grinding, sandblasting, vibrating screens, and material crushing operations.

FT-SD Seri	FT-SD Series Pulse Jet Industrial Dust Collector (Suspended Filter Cartridge Type)							
Model	FT-SD15	FT-SD22	FT-SD30	FT-SD40	FT-SD55	FT-SD75	FT-SD06	FT-SD08
Power (kW)	1.5	2.2	3.0	4.0	5.5	7.5	11/15	18.5
Max Airflow (m³/h)	2000	2400	3000	4000	5000	7000	10000	15000
Filtration Area (m²)	15	15	15/30	15/30	80	120	180	240
Filter Material	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY
Inlet Diameter(mm)	150/200	150/200	150/200	150/200/250	250/300	300/350	300/350/400	350/400
Number of Filter Cartridges	2	2	2/4	2/4	4	4	6	8
Dust Collection Box Volume (L)	30	30	30/40	30/40	55	55	70	100
Dimensions L×W×H (cm)	65*70*140	65*70*140	70*75*143 80*75*143	85*85*158	96*96*182	96*96*204	96*134*230	96*185*230
Negative Pressure (Pa)	1500	2200	2500	3000	4000	4500	5000	6000
Cleaning Method	Automatic Pulse Jet Cleaning							

#### FT-SK Series Sheet Metal Laser Cutting Industrial Dust Collector

### **Performance** Features

- Equipped with a high-airflow dust removal fan, and for working conditions with a large amount of dust, it features a large filtration area with nano filter cartridges, providing excellent filtration and collection of fine, smoke-like dust generated by laser cutting and welding.
- Pulse jet cleaning function with Venturi tubes to enhance reverse air pulse volume.
- Stable and reliable operation with strong suction capacity.
- Horizontally inserted filter cartridges for easy maintenance and cleaning.
- Aluminum alloy impeller for lower overall noise.



Large-capacity dust collection box with universal casters for convenient dust disposal.

# Applicable Working Conditions

Medium and large-scale sheet metal laser cutting and welding operations, as well as other applications involving high volumes of dust collection and processing.

]	FT-SK Series Medium and Large Industrial Dust Collector							
Model	FT-SK04B	FT-SK04	FT-SK06	FT-SK08	FT-SK12			
Power (kW)	4	5.5	7.5	11	15	18.5		
Max Airflow (m³/h)	4000	5000	7000	8500	10000	15000		
Filtration Area (m <sup>2</sup> )	80	80	120	160	180	240		
Filter Material	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY	AhlstroM TORAY		
Number of Filter Cartridges	4	4	6	8	9	12		
Inlet Diameter (mm)	200/250	250/300	300	300/350	300/350/400	350/400		
Dust Collection Box Volume (L)	50	50	50	110	95	100		
Dimensions L×W×H (cm)	106*122*195	106*122*195	106*122*240	106*198*208	149*124*250	195*130*275		
Negative Pressure (Pa)	3000	3500	4000	5000	5000	6000		
Cleaning Method	leaning Method Pulse Jet Cleaning							
	Built-in Spark Arrestor							



# FT-SG Series High Negative Pressure Pulse Industrial Dust Collector

# Performance Features

Threaded Twist-Lock Filter Cartridge Structure + Membrane-Coated Filter Cartridge

• The threaded twist-lock installation design significantly reduces filter cartridge replacement time.

• The filter cartridge uses membrane-coated material, offering resistance to oil, water, and contaminants. Dust is less likely to adhere, makingcleaning easier and preventing clogging of the filter cartridge.

• Multi-cartridge design effectively extends the service life of the machine.

# Safe Electrical Control Structure with Remote Control Capability

• Enables more convenient remote control operation, with customizable remote control functions based on customer requirements.



(Equipped with full machine explosion-proof function and certified for explosion protection)

#### Applicable Working Conditions

Dust collection for lithium battery industry applications, composite material cutting, laser welding, and particle dust extraction for machine tool integration.



	FT-SG High Negative Pressure Pulse Jet Industrial Dust Collector								
Model	FT-SG15	FT-SG22	FT-SG30	FT-SG40	FT-SG50	FT-SG75	FT-SG110	FT-SG125	FT-SG150
Power (kW)	1.6	2.2	3.0	4.0	5.5	7.5	11	12.5	15
Max Airflow (m <sup>3</sup> /h)	210	265	345	420	530	700	1100	1350	1500
Filtration Area (m²)	10	10	20	20	20	20	30	30	30
Filter Material	TORAY	TORAY	TORAY	TORAY	TORAY	TORAY	TORAY	TORAY	TORAY
Number of Filter Cartridges	2	2	4	4	4	4	6	6	6
Inlet Diameter (mm)	5	0	50/75/Customized				100-150		
Dust Collection Box Volume (L)	14	14	18	18	25	25	36	36	36
Dimensions L×W×H (cm)	60*70*105	60*70*105	60*60*135	60*60*135	68*70*145	68*70*145	90*85*170	90*85*170	90*85*170
Negative Pressure (Pa)	20000	23500	24000	26000	30000	27000	26000	19000	15000
Cleaning Method	ethod Pulse Jet Cleaning								
	Built-in Spark Arrestor								

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### VOCs Activated Carbon Adsorption Device







Dimensions	Overall dimensions are customized based on the actual air handling capacity
Main Material	Q235/SUS304
Shell Plate Thickness	3.0mmt-8mmt
Air Inlet Design	Side-in, Side-out
Adsorption Material	<ol> <li>Activated Carbon (High Iodine Value)</li> <li>Molecular Sieve (High Adsorption Efficiency)</li> </ol>
Filter Operating Temperature Range	Up to 80℃
Adsorption Efficiency	Above 90%
Industry Applications	Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and automotive parts.

#### VOCs Activated Carbon Adsorption Unit - Engineering Cases



BYD Injection Molding Workshop in Shanwei VOC Exhaust Treatment, 58,000 CMH



Japanese Glass Industry Enterprise in Suzhou VOCs Secondary Adsorption Purification System



Power Industry in Suzhou VOCs Secondary Adsorption Purification for Injection Molding



Chemical Industry in Suzhou VOCs Secondary Adsorption Purification System





Coating Industry in Jiangxi VOCs Single-Stage Adsorption Purification System PCB Industry in Sichuan VOCs Purification System with Water Scrubbing + Activated Carbon Adsorption

#### Application Fields:

Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and automotive parts.



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Environmental Protection Accessories

#### High-Efficiency Filtration Components





PE Sintered Filter Plate



#### Safety and Explosion-Proof System Components













# Cartridge-Type Dust Collector (Magazine Style) - Engineering Cases

Suitable for inlet dust concentrations ranging from 30 mg/m<sup>3</sup> to 3000 mg/m<sup>3</sup>, with a filtration efficiency of 99.56% at 0.3 µm and an emission concentration below 20 mg/m<sup>3</sup>. Specific designs are optimized according to actual working conditions.





Optoelectronics Industry Dust Collection System - Zhengzhou



CCL (Copper Clad Laminate) Industry Dust Collection System - Hangzhou

#### Application Fields:

Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and automotive parts.



Resistor & Capacitor Industry Dust Collection System - Yiyang, Hunan

#### Pulse Jet Baghouse Dust Collector - Engineering Cases

Applicable for inlet dust concentrations from 50 mg/m<sup>3</sup> to 2000 mg/m<sup>3</sup>, with a filtration efficiency of 98.5% at 0.5 µm and emission concentrations below 20 mg/m<sup>3</sup>. The system is specifically optimized based on actual working conditions.



#### Urban Waste Sorting Dust Collection System - Yingtan, Jiangxi



Explosion-Proof Dust Collection System for Chemical Industry - Suzhou Urban Waste Sorting Dust Collection System - Wuyi



Dust Collection System for Photovoltaic Module Factory - Ningbo





Dust Collection System for Computer OEM Grinding Process - Suzhou



Dust Collection System for Automotive Parts Industry - Guangzhou

#### Application Fields:

Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and automotive parts.

#### PE Sintered Plate Dust Collector - Engineering Cases

Suitable for inlet dust concentrations ranging from 500 mg/m<sup>3</sup> to 2000 mg/m<sup>3</sup>, with allowable dust moisture content below 30%, a filtration efficiency of 99.8% at 0.3 µm, and an emission concentration of 10 mg/m<sup>3</sup>. The filter has a long service life of up to 5-8 years and can be repeatedly cleaned and reused.



Topcon Process Dust Collection System for Photovoltaic Industry - Meishan, Sichuan

Dust Collection System for Photovoltaic Industry - Hangzhou



Bottom-Mounted PE Sintered Plate Installation Diagram

Top-Mounted PE Sintered Plate Installation Diagram









High-Pressure Dust Collection System for PCB Drilling Process - Changzhou

Raw Material Collection System for Lithium Battery New Materials - Changshu



Vacuum Cleaning Dust Collector - Engineering Cases

Suitable for high-pressure cleaning, PCB drilling/forming, and HV vacuum dust collection, with a filtration efficiency of 99.8% @ 0.5 µm, emission concentration below 20 mg/m<sup>3</sup>, and vacuum pressure ranging from 15,000 Pa to 35,000 Pa.



Vacuum Cleaning Dust Collection System for Crystal Pulling Workshop, Photovoltaic Module Plant - Baotou High-Pressure Dust Collection System for Drilling Workshop, PCB Industry - Huangshi, Hubei



#### Application Fields:

Applied in industries such as PCB, semiconductors, glass panels, photovoltaics, lithium battery new materials, coatings, food, chemicals, rubber, and automotive parts.

#### Acid-Alkali Waste Gas Scrubbing System



PP Vertical Scrubber Tower



FRP Horizontal Scrubber Tower









Internal Structure Flow Diagram of Scrubber Tower



#### Control System of Scrubber Tower





#### Control System of Scrubber Tower

Control System of Scrubber Tower



Dual-Pump Configuration (One in Use, One Standby)



Overflow Port and Inlet Positioned at 180°



Spray Pipe Equipped with Water Pressure Gauge



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#### Waste Gas Treatment Equipment - Engineering Cases



VOCs Adsorption - Desorption RCO Purification System for Coating & Chemical Industry - Wuhan



VOCs Treatment System with ZeoliteRotor + RTO for Laptop Shell Coating - Changzhou





#### Working Principle

VOCs emitted from the process are effectively adsorbed by the zeolite in the concentrator rotor, thereby achieving removal. The clean air, after VOCs are adsorbed by the zeolite, is discharged directly into the atmosphere via the chimney. Simultaneously, the adsorbed VOCs are transferred to the desorption zone. In the desorption zone, heated air is used to desorb the VOCs from the zeolite rotor. The rotor then rotates back to the adsorption zone to continuously capture VOCs. The desorbed, concentrated organic waste gas is sent to the Regenerative Thermal Oxidizer (RTO), where it is oxidized at temperatures above 760° C, converting the VOCs into CO2 and H2O.

#### Equipment Features

1. Cost-effective solution for treating large air volumes with low VOC concentrations.

2. Easily adaptable to changes in airflow volume and VOC concentration.

- 3. Converts large-volume, low-concentration VOC exhaust into low-volume, high-concentration exhaust, achieving a concentration ratio of 5 to 20 times, which significantly reduces the size of downstream treatment equipment and lowers operational costs.
- 4. The rotor is made of inorganic oxides, making it non-combustible and thus providing higher safety.



Zeolite Rotor System





#### Exhaust Equipment Piping Introduction



VOCs Exhaust Secondary Collection Piping Example Image (SUS304 Stainless Steel)



CNC Machining Dust Collection Ducting Example Image (Q235B Carbon Steel)



High-Speed Panel Cutting Machine Dust Collection Ducting Example Image (Threaded Galvanized Pipe)



PTH Electroplating Line Acid & Alkaline Exhaust Collection Ducting Example Image (PP Plastic)

- 1. Pipeline material: Q235B; SUS304 (suitable for dust and VOCs exhaust gas collection);
- 2、PP; FRP (suitable for acidic and alkaline exhaust gas collection)
- 3. Designed internal flow velocity of the pipeline: Dust removal pipelines (18-25 m/s)
- 4. VOCs organic exhaust gas and acidic/alkaline exhaust gas (8-12 m/s);

specific flow velocity should be optimized in detail based on the properties of the dust and exhaust gas

- 5. All dust extraction branch pipes and main ducts must be cut and welded at a 30° inclined angle; this ensures smooth entry of dust and exhaust gas into the main duct, reduces duct resistance, and decreases the likelihood of dust clogging
- 6. The main pipeline in the workshop should be designed and installed in a gradually expanding manner according to the increasing air volume, ensuring relatively consistent airflow before and after each branch pipe
- 7. Inspection ports should be set every 2-4 meters on the main duct, using flange connections (including sealing gaskets) + anti-static grounding wires
- 8. Each dust extraction branch pipe should be equipped with a manual valve or pneumatic valve as well as a connecting hose
- 9. The internal surface of pipelines for special gases or dust must be coated with P.T.F.E for acid and alkali resistance, wear-resistant coatings, or made from flame-retardant and anti-static materials
- 10, General formula for pipeline diameter design: A = Q / (3600s  $\times$  V)
  - Explanation of the formula variables: A: Cross-sectional area of the pipe  $(m^2)$ , Q: Required air volume (CMH  $m^3/h$ ), V: Designed flow velocity (m/s)

#### Control System Engineering Case



#### Outdoor Local Control Cabinet

Internal Assembly Diagram of the Dust Removal System Control Cabinet



VNC Remote Control/Monitoring Interface (Mobile and PC Versions)

Overview of Control Cabinet Technical Highlights:

- 1, Control cabinet material: Q235B with baked paint; SUS304
- 2. Main components: ABB frequency converter, Schneider electrical components, Siemens PLC (brands can be selected as needed)
- 3. Performance features: Differential pressure sensing of filter layers, duct air velocity sensing, tower internal temperature sensing, pulse indication, motor operation indicators, etc.
- 4. Energy-saving operation measures: PID constant pressure system; automatic frequency adjustment energysaving operation mode

Reserved external communication interfaces for data reading: Modbus TCP, Modbus RTU\_485

General Layout Plan of Dust Collection System for the Solar Photovoltaic Industry

# 15GW High-Efficiency HJT Cell Project - PECVD/VCD Process Exhaust Gas Purification Equipment Construction Drawing





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### Safety Protection and Operation Maintenance

# Fengtu Safety Operation & Maintenance Center

- 1. Real-time internet-based application access for remote monitoring via mobile or desktop;
- 2. Monitoring device status and managing operational performance;
- 3. Locating equipment through network-based positioning;
- 4. Recording staff inspection logs and attendance;
- 5. Easy implementation of equipment detection, maintenance, management, and early warning for abnormal events;
- 6. Capable of receiving operational status data from environmental protection equipment at other regulated facilities;
- 7. Establishing a unified business service platform;
- 8. Assisting customers in achieving a fully integrated, comprehensive information security and maintenance system.

### Product Functions

#### Infrastructure

- On-Site Inspection
- Customized Design
- Equipment Load Capacity Assessment
- Installation Base Dimensioning
- Surrounding Area Protection



After-Sales Service Commitment

South China Region: Upon receiving a service request call, if the issue cannot be resolved over the phone, our technicians will arrive on-site within 12 hours to perform troubleshooting. Service Address: Meijing West Road, Rhino Industrial Zone, Dalang Town, Dongguan City Service Hotline: 0769-81623192 / 13925765627

East China Region: Upon receiving a service request call, if the issue cannot be resolved over the phone, our technicians will arrive on-site within 12 hours to perform troubleshooting. Service Address: No. 1508 Jinzhou Road, Lili Town, Wujiang District, Suzhou City Service Hotline: 0512-57364680 / 13773105887

Southwest China Region: Upon receiving a service request call, if the issue cannot be resolved over the phone, our technicians will arrive on-site within 12 hours to perform troubleshooting.Service Address: Building C, Plant No. 5, No. 666 South 5th Road, Economic Development Zone, Longquanyi District, Chengdu

Service Hotline: 028-84860130 / 18582519966

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# Bird' s-Eye View of the Full-Plant Acid-Alkali Waste Gas Purification & Dust Collection Project





# SuzhouFengtu Environmental Technology Co. Ltd

#### **Company Addresses**

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