

Overview of Air Pollution Control Equipment

Air pollution presents as the pollutants of dust, fume, particle, gas, mist, odor, smoke, vapor, etc., affects the human, animal and plant, damages our living environment.

Air pollutants consist of particulate and gas phases. The latter includes VOCs, SO_2 , SO_3 , H_2S , CS_2 , NO , NO_2 , CO , Cl_2 , HCl , HF , etc. The five primary pollutants are carbon monoxide (CO), nitrogen oxide (NO_x), hydrocarbon (HC), sulfur oxide (SO_x) and particulate.

I 、Air Pollution Control Technology

Improper use of fuel, material, and process will result in air pollution. Thus, correcting the improper at the source is the simplest and best way to solve air pollution problem. If the cause of air pollution cannot be avoided, then the control equipment must be used to purify the polluted air. Figure 1 shows the normal practice of air pollution control technology and equipment.

The treatment methods of particulate, sulfur oxide, nitrogen oxide and volatile organic compounds are described as following:

1. Particulates : Pollutants can be removed by physical functions such as inertia force, filtration, washing and electrostatic dust collecting equipment.
2. Sulfur Oxides : They can be treated and recovered by chemical processes such as neutralization and oxidation. The feasible processes include wet, dry and semi-dry methods.
3. Nitrogen oxides : They can be removed by reduction or oxidation reactions to form non-toxic nitrogen or nitrates.
4. VOCs & Odors : They can be removed by absorption, adsorption and thermal oxidation.

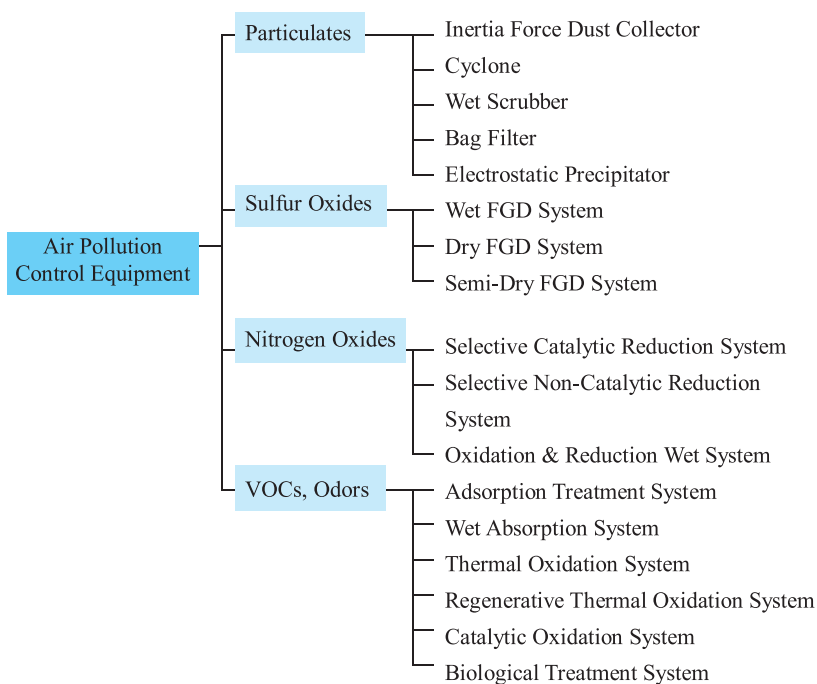


Fig. 1 : Air Pollution Control Technology and Equipment

II 、Description of Air Pollution Control Equipment

1. Dust Collecting Equipment

Dust collecting equipment is well-developed in Taiwan, has been widely applied to all industries. The products include bag house, cartridge filter, wet scrubber, electrostatic precipitator, cyclone, etc.

2. De-SO_x System

The flue gas desulfurization system (FGD) can be classified as wet, dry and semi-dry methods.

The wet FGD method is widely applied. Sodium hydroxide is

used to react with SO_x to form by-products such as sodium sulfate.

The dry FGD system is to inject dry powder to react with SO_x . The reacted product can be collected by a bag house or ESP.

The semi-dry FGD system uses calcium or sodium hydroxide to remove SO_x . The agent solution mist is injected into the flue to react with SO_x . The flue heat will evaporates all the water, dry sodium or calcium salts are collected by a bag house or ESP.

3. De-NO_x System

Except oxidation/reduction wet method, mainly are Selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR) methods. SNCR method injects NH_3 to convert NO_x into N_2 and H_2O at high temperature. The SCR method has an additional catalytic so that the reaction can proceed under a lower temperature of $250\sim 400^\circ\text{C}$. Materials such as Pt, V and Ti in the form of pellet, cylinder, sphere, ring, plate and honeycombs are used as the catalyst. Normally the catalyst should be replaced every 2 to 4 years.

4. Volatile Organic Compounds Treatment and Recovery System

The “Adsorption” is an operation to use the surface reactive capability of materials, such as activated carbon & zeolite, to capture certain substances from a gas stream. It is cost-effective to remove selected pollutants from waste gas until the absorbent is saturated. Adsorption is advantageous for treating low concentration gaseous pollution such as VOCs and odors.

The adsorption equipment can be designed as a rotary concentrator. It adsorbs pollutants and recovers high concentration stream by a hot air, then send to thermal oxidizer to destroy the VOCs completely.

The VOCs can be destroyed to CO_2 and H_2O completely at certain high temperature. The direct thermal oxidizer (TO) is an

effective way, but consumes large amount of fuel. So it is available for high concentration VOCs.

A regenerative thermal oxidizer (RTO) utilize ceramic materials to recover the heat of oxidized hot air, is an advantage of energy saving.

A catalytic oxidizer (CO) can low down the oxidation temperature, is the most effective for energy saving. But the catalyst needs to renew periodically.

The exhaust of VOCs is an important factor of air pollution and global warming. As a fact VOCs is also a heat resource itself, how to solve the VOCs pollution problem and recycle its heat energy are very important to our industry.

5. Fan & Blower

Fan and blower are classified depending on their pressure ability, mainly used on industrial ventilation, waste air exhaust and material conveying. They are necessary and important equipment for air pollution control process. The manufacturers have sufficient technic for low/medium/high pressure and even vacuum products. The structure materials include carbon steel, stainless steel, cast iron, anti-abrasion steel, PP, FRP, etc.

Overview of Noise Prevention and Control Equipment

Noise is a sound wave of irregular frequency and incompatible pitch that irritates those who can hear it. Manufacturing plants can easily produce so much noise to lower the environmental quality of the surrounding areas. Further, in addition to adversely impacting the efficiency of those working in the plant, the noise will also damage the workers' hearing. Thus, noise prevention and control is a serious concern. Sources of industrial noise are shown in Table 1.

Table 1: Typical Sources of Industrial Noise

Category of Noise	Typical Examples
Incineration process	Furnaces
Impact process	Hammer
Electrical equipment	Motor, generator
Gas flow	Intake, jet, emission
Contact between metals	Gear set
Fluid flowing in confined spaces	Wind pipe, water pipe, valve
Contact between flowing fluid and metal surface	compressor, fan, pump

I 、Strategies for Preventing and Controlling of Noise:

There are three strategies for preventing and controlling of industrial noise.

1. Improvement and control of noise sources.
2. Alteration of the noise paths.
3. Modification of the noise receiver's behavior.

II 、 Domestic Equipment Frequently Used for Noise Prevention and Control

Methods commonly used for preventing and controlling noises include: mufflers, muffling boxes (ditches), noise control panels and installing noise control wall (screening or curtain) as explained in the follows:

1. Installing Mufflers:

Based on adsorption, reflection and interference of sound waves, the muffler is used to reduce noise. It is mostly installed in emission pipes, exhausting pipes and pressure relief pipes to reduce the noise caused by high-speed gas exhausted from compressors, generators and pressurized tanks. The muffler is made of steel plate as a diffuser to disperse the kinetic energy of a gas stream emitted from a chamber, hole or intake. It consists of parallel plates, center column or holes to absorb the high-pitch frequency waves of the noise for achieving noise reduction.

2. Installing Muffling Box (Ditch) or Panels

Muffling boxes (ditches or panels) apply the same principle as mufflers to reduce noise but they are used in large emission pipes or where it is inconvenient to stall mufflers. Using this method, the gas velocity in either internal pipes or near the exhaust exit must not exceed 15 cm/sec to avoid the secondary noise problems caused by high gas flow velocity. Generally, this type of equipment will reduce noise of more than 10 dB depending the material and area of internal noise absorbent.

3. Installing Noise Reduction Wall (Panel or Screen)

This method depends on installing an obstacle between the noise source and the receiver to increase the noise transmission path and energy consumption for achieving noise reduction. Generally, the noise reduction wall will reduce 5 – 15 dB noise with a maximum of 25 dB. The noise reduction efficiency depends on the height and the material as well as method of installation of the wall installed.

There are a few domestic companies specialized in manufacturing noise prevention and control equipment such as noise reduction plate glass, noise reduction boxes, noise reduction doors and mufflers being the major products.

CONDUCTION WET SCRUBBER

1. Structure and Principle

This system uses the original power from various air exhaust systems to treat waste gas and dust in pollutants. It has the function of sedimentation, collection, filtering, and dust removing.

2. Features

- (1) The rear part of the exhaust does not need additional power supply.
- (2) Independent gas outlet for individual pollution source; no back-flow or cross Contamination.
- (3) Pressure loss is under 15mmAg.
- (4) The air outlet of multi-set pollution source is available to build only one set of exhaust chimney.
- (5) Suitable for use with an exhaust system pollution control for various circles.
- (6) Easy to inspect; low cost.
- (7) Saving energy cost.

3. Specifications and Functions

Material quality : PP, PVC, SUS304, galvanize, SS400 depends on the waste spirit established rule.

4. Product Photo



三鵬企業股份有限公司 SAN PERNG ENTERPRISE CO., LTD.

苗栗縣苑裡鎮新復里4鄰50之2號 No. 50-2, Lin 4, Sinfu Village, Yuanli Township, Miaoli County, Taiwan
TEL : +886-4-2681-1321 ~ 2 Fax : +886-4-2681-1320
E-mail : sanperng@ms47.hinet.net <https://www.sanpeng.com.tw>

ELECTROSTATIC TYPE OIL MIST ELIMINATOR

1. Structure and Principle

By making use of the principle of attraction between positive and negative electrodes, this system creates a electromagnetic field to collect oil mist or ionized granules. This system can be used to remedy problems caused by pollution and achieve the purpose of air purification. Oil mist eliminating rate can reach up to 95~99%.

2. Purpose

Palm oil refining industry, dyeing industry, oil production, glass industry, paper pulp, incinerator, food, paper-making, chemical industry, heat treatment processing industry.

3. Specifications and Functions

Material quality : SUS304, SUS304L, SUS316, SUS316L
galvanize the material quality.

Processes waste spirit : 10 ~ 2,000 cmm.

三鵬企業股份有限公司 SAN PERNG ENTERPRISE CO., LTD.

苗栗縣苑裡鎮新復里4鄰50之2號 No. 50-2, Lin 4, Sinfu Village, Yuanli Township, Miaoli County, Taiwan
TEL : +886-4-2681-1321 ~ 2 Fax : +886-4-2681-1320
E-mail : sanperng@ms47.hinet.net <https://www.sanpeng.com.tw>

OIL MIST ELIMINATOR

1. Structure and Principle

After oil mist enters into the filtering equipment, it then goes through the primary, intermediate, and high performance filtering layers for filtering for separation of different substance. As soon as the warning indicator is activated by the pressure gage at the filtering net, the filtering element is required for replacement.

2. Purpose

Screw, Steel rolling, metallic surface processing, chemical industry, and electronic industry.

3. Features

Varied Processing for constant temperature oil mist.

4. Specifications and Functions

10 ~ 2,000 cmm.

5. Product Photo



三鵬企業股份有限公司 SAN PERNG ENTERPRISE CO., LTD.

苗栗縣苑裡鎮新復里4鄰50之2號 No. 50-2, Lin 4, Sinfu Village, Yuanli Township, Miaoli County, Taiwan

TEL : +886-4-2681-1321 ~ 2 Fax : +886-4-2681-1320

E-mail : sanperng@ms47.hinet.net <https://www.sanpeng.com.tw>

PULSE JET BAG FILTER

1. Structure and Principle

After dusty air gets through the sedimentation chamber for even distribution of the airflow and after pre-filtering, the filter bag enabling dusts to adhere to the dust tube and create dust cakes filters the dust. Then, by compressing against high-pressure air, dust is vibrated to fall behind the dust hopper through air spray reversed scrubbing; dusts then pass through the screw conveyor and rotary valve and are discharged and collected.

2. Purpose

Asphalt mixing, burning, incinerating, lumber industry, chemical engineering, pharmacy, and electronic industry, etc. processing to collect dust for recovery and delivery treatment.

3. Specifications and Functions

- (1) Outer covering material quality : SUS304, SUS316, galvanized sheet, SS400.
- (2) Filter material : Varies according to the types of pollutant. Choices can be made to suit the needs.
- (3) Process load : designed for varied demands
- (4) Processing efficiency : May reach above 99.8%.

4. Product Photo



三鵬企業股份有限公司 SAN PERNG ENTERPRISE CO., LTD.

苗栗縣苑裡鎮新復里4鄰50之2號 No. 50-2, Lin 4, Sinfu Village, Yuanli Township, Miaoli County, Taiwan
TEL : +886-4-2681-1321 ~ 2 Fax : +886-4-2681-1320
E-mail : sanperng@ms47.hinet.net <https://www.sanpeng.com.tw>

NON-PUMP WET EXHAUST TREATMENT EQUIPMENT

1. Structure and Principle

Non-Pump Wet Exhaust Treatment Equipment consists of a tank, gas induction stopper, spray neck, flow stirrer, dewater stopper, liquid surface adjuster, overflow surface adjuster, and discharge valve (electric, pneumatic or manual). This system can be further fitted with essential auxiliary equipment for pollutants with various physical properties.

Gases containing dust are inducted into the system. As the induction stopper keeps a small channel from the liquid surface, the exhaust passes through the neck at high speed; the centrifugal force then causes considerable splashes, forming swirls, and the impact of massive moisture on the stopper produces collision to drive dust-carrying air to rise rapidly from the bottom to mix with liquid and flush up and down to derive extremely high filtering efficiency. After which, the purified air sputters with water droplets and, upon colliding on the dewater stopper, separates into air and water. The water is then completely captured and only the air is released. In the case of drastic gas flow fluctuation, the overflow adjuster of the water-level adjuster may be used to maintain the dust-gathering function.

2. Purpose

This equipment processes water soluble (hydrophilic) gases, Liquid format micro-particles, Solid particles, and odors.

3. Features

- (1) The equipment is capable of processing high temperature and moisture containing gases.
- (2) Reasonably priced, this ideal gas and liquid mixture washing device offers excellent exhaust capturing, yielding over 95 % capture rate for 3 – 5 μ micro-particles.
- (3) The device requires no pump and relies on fan to drive gases through the passage and centrifugal force for designation of moisture; the spacious interior enables easy maintenance and inspection.
- (4) Small pressure loss (150 mmAq), nearly no wear parts to save operating cost.

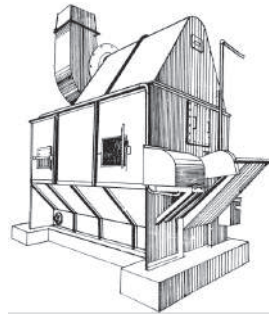
千增股份有限公司 CHIAN TZENG CO., LTD.

桃園市龜山鄉區專一街 78 號 No.78, Chazhuan 1st St., Guishan Dist., Taoyuan City, Taiwan
TEL : +886-3-359-4725 FAX : +886-3-359-4727
E-mail : jeen.fong@msa.hinet.net <http://www.jeenfong.com.tw>

4. Specifications and Functions

- (1) The body of the equipment is made to accommodate high-temperature gases, which is made of SUS 304, 316, 316L grade stainless steel, SS400 rustproof treaed and spray painted; Applicable for acidic, alkaline chemical exhausts, PP, PVE, PE.
- (2) The filler material may be SUS304, PP, or PVC according to the exhaust's physical properties.

5. Product Photo



千增股份有限公司 CHIAN TZENG CO., LTD.

桃園市龜山鄉區專一街 78 號 No.78, Chazhuan 1st St., Guishan Dist., Taoyuan City, Taiwan
TEL : +886-3-359-4725 FAX : +886-3-359-4727
E-mail : jeen.fong@msa.hinet.net <http://www.jeenfong.com.tw>

PULSE SPRAY-TYPE FABRIC FILTER

1. Structure and Principle

This equipment consists of a filter unit, collection funnel, ash discharge system, filter system, and dust spray-off system.

- (1) The filter unit must have sufficient pressure resistance capacity and weight-bearing capacity to keep the fabric filter and Venturi pipe frame from deforming.
- (2) The collection funnel is designed according to particular dust properties; the rest of the corners may not be lower than the angle of the lowest flow, and the unit is fitted with a maintenance hole.
- (3) Ash discharge system consists of a rotating release valve or spiral conveyor and can be used independently or combined according to particular dust properties. Discharge is continuous to deter deposit accumulation.

The filter system is fitted with choice of fabrics according to exhaust properties; when particles of certain diameter pass through the filter, larger particles will move along inertia conflict and smaller particles will disperse and attach to the fabric threads.

- (4) While forming particle bridges between threads, an attachment layer with numerous tortuous micro-pores is also formed. Generally the empty-space rate is around 80-85%, and these micro-pores serve to capture micro-particles.
- (5) Dust spray-off system : As the name informs it relies on the instant spray force of high-pressure air to bring large air volume into the fabric filter via the Venturi principle for the filter surface to vibrate and consequently shake off the dust caked on the filter surface.

When passing through the filter, the air carrying the dust leaves dust on the exterior of the fabric filter. For constant filtering wind volume and pressure difference, every filter must be continuously washed. This system is equipped with compressed air reverse wash. The fitted magnetic valve is controlled via an electronic sequencing circuit, which is triggered at preset intervals and operates the film. Once the film is opened, the compressed air jettisons in the pipeline fitted at the top of the fabric filter loosens the dust or dust bits attached to the outside of the filter into the catcher.

千增股份有限公司 CHIAN TZENG CO., LTD.

桃園市龜山鄉區專一街 78 號 No.78, Chazhuan 1st St., Guishan Dist., Taoyuan City, Taiwan

TEL : +886-3-359-4725 FAX : +886-3-359-4727

E-mail : Jeen.fong@msa.hinet.net <http://www.jeenfong.com.tw>

2. Purpose

Recycling processing containing dust waste gas.

3. Features

- (1) Maximum dust removal efficiency.
- (2) Minimize requirement of power equipment to cut operating and maintenance costs.
- (3) Reduce filter size.
- (4) Elevate filtering speed.
- (5) Greater processing capacity, maintaining nearly consistent processing capacity.
- (6) Reduce filter wear and tear to enhance effective filter lifespan.
- (7) Widely applicable in dust producing operations.

4. Specifications and Functions

The unit and support materials are SUS304, 316, 316L grade stainless steel, or SS400 rustproof treated then stray painted. The filter frame is made of SUS304 or 316 grade stainless steel.

The filter fabric is selected according to particular dust's physical properties and exhaust temperature.

5. Product Photo



千增股份有限公司 CHIAN TZENG CO., LTD.

桃園市龜山鄉區專一街 78 號 No.78, Chazhuan 1st St., Guishan Dist., Taoyuan City, Taiwan

TEL : +886-3-359-4725 FAX : +886-3-359-4727

E-mail : Jeen.fong@msa.hinet.net <http://www.jeenfong.com.tw>

STATIC FILTER

1. Structure and Principle

This static filter employs the polarity theory of attraction between opposite electrodes and electromagnetic fields of two opposites electrodes created by imposed high pressure. Columbic force charges dust particles, which are sucked by wind to attach to the collection sheet and achieve the purpose of air purification.

The static filter can be low pressure or high pressure. In the design, the properties of dust and smoke must be taken into account, and, where necessary, a preliminary filter may be fitted at the inlet and a high-performance filter or deodorizer may be fitted at the outlet.

- (1) Filter may be manually removed for cleaning.
- (2) This equipment is fitted with an auto-cleanser.
- (3) This equipment is fitted with a timed pounding system for pounding.

2. Purpose

The equipment may be used for treating powder dust, ashes, smoke ashes and smolder produced in the process of manufacturing.

3. Specifications and Functions

The equipment is made of SUS304 or SS400 grade materials.

Standard Equipment :

- (1) Static filter housing.
- (2) Support frame.
- (3) Suspension system.
- (4) High-polarization structure.
- (5) Ash silo.
- (6) Ash discharge system.
- (7) DC HV power supply device (HV producer).
- (8) HV switchgear.
- (9) HV insulation.
- (10) Spray wash system (or dust pound-off system).

4. Features

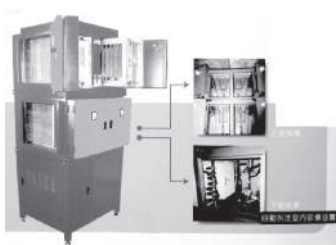
- (1) Power supply for this equipment is in SCR format. It is equipped with voltage, current and frequency adjustment controls for easy operation.
- (2) The control console employs a separation transformer to prevent stray signal from interfering with the electronic circuit.

千增股份有限公司 CHIAN TZENG CO., LTD.

桃園市龜山鄉區專一街 78 號 No.78, Chazhuan 1st St., Guishan Dist., Taoyuan City, Taiwan
TEL : +886-3-359-4725 FAX : +886-3-359-4727
E-mail : jeen.fong@msa.hinet.net <http://www.jeenfong.com.tw>

- (3) It is designed with an output detection circuit , which automatically cuts off power if no output voltage is detected after 10 seconds from startup.
- (4) The auto voltage adjusting circuit is capable of detecting sparks. when sparks are detected, the voltage is reduced.
- (5) The design of the multiple section sheet and pipe-type long-distance dust and smoke collection enables over 98% of efficiency.
- (6) The equipment requires minimum power to operate and minimizes wind resistance.
- (7) The distance between the collecting electrode and the discharge electrode is designed according to the physical properties of target dust particles to increase the efficiency of dust capture while reducing powder attachment to the discharge electrode.
- (8) The airflow at the inlet is evenly distributed to reduce dust dispersion caused by uneven load.

5. Product Photo



千增股份有限公司 CHIAN TZENG CO., LTD.

桃園市龜山鄉區專一街 78 號 No.78, Chazhuan 1st St., Guishan Dist., Taoyuan City, Taiwan

TEL : +886-3-359-4725 FAX : +886-3-359-4727

E-mail : jeen.fong@msa.hinet.net <http://www.jeenfong.com.tw>

CARTRIDGE DUST COLLECTOR, BAG HOUSE

1. Structure and Principle

Utilize a specially designed “Jet-Deflector” cartridge filter to enhance dust release and reduce housing size. The fine dust will be fully collected when dust-laden air enters through the cartridge filter. There is a sedimentation chamber and flow distributor at the air inlet to separate large and heavy particles, ensuring a longer bag life.

2. Purpose

For all kinds of dust need to be collected..

3. Features

- (1) Cartridge Filter Enlarges Filter Area by 7 Times.
- (2) Inside Jet Deflector Enhances Dust Release, No Dust Clogging.
- (3) Fine Separated Cartridge Pleats, No Dust held up.
- (4) Unity of Filter with Jet Deflector and Venturi Tube, Easy for Installation and Maintenance.
- (5) Equipped with Sedimentation Chamber and Flow Distributor, Can Handle High Dust Laden Air and Large Particles.

4. Product Photo



台灣公害處理工程股份有限公司

TAIWAN ENVIRONMENTAL ENGINEERING CO., LTD.

新北市中和區連城路 258 號 15 樓之 4

15F-4, No. 258, Lian-Cheng Rd., Chung-Ho District, New Taipei City, Taiwan

TEL : +886-2-8227-1299 FAX : +886-2-8227-1289 E-mail : teec@teec.com.tw <http://www.teec.com.tw>

CENTRAL VACUUM CLEANING SYSTEM

1. Structure and Principle

Utilize small-size pipe work, can easily clean up the factory area, work shop, clean room, machine room, even office.

Simply insert the vacuum pipe nozzle into the wall-mount or floor-mount socket, then cleaning job can be operated.

The pressure resist dust collector and vacuum blower can be located outside the area for easy maintenance.

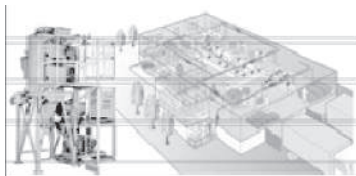
2. Purpose

For cleaning of floor, table, machine, clean room, and others. Also available for powder pneumatic conveying.

3. Features

- (1) Small size piping, easy installation for all kinds of working place.
- (2) Standard pipe nozzle attachments for easy cleaning job.
- (3) Powerful vacuum for exact cleaning.
- (4) Offer low noise design for special location.

4. Product Photo



台灣公害處理工程股份有限公司

TAIWAN ENVIRONMENTAL ENGINEERING CO., LTD.

新北市中和區連城路 258 號 15 樓之 4

15F-4, No. 258, Lian-Cheng Rd., Chung-Ho District, New Taipei City, Taiwan

TEL : +886-2-8227-1299 FAX : +886-2-8227-1289 E-mail : teec@teec.com.tw <http://www.teec.com.tw>

VACUUM DUST COLLECTOR SYSTEM

1. Structure and Principle

Specially designed for PC Board Drill and Router machine. This central vacuum dust collector is equipped with:

- (1) Vacuum piping with static pressure control.
- (2) Pressure-resist cartridge dust collector.
- (3) Double flap dumping valves.
- (4) Low noise vacuum blower.

Auto control, anti-static, continuous dust discharge for 24 hrs/day operation.

2. Purpose

- (1) Vacuum dust collector for PCB' drill, router, and cutting process.
- (2) Central vacuum dust collector for other processes.

3. Features

- (1) Well piping designed, good flow distribution, no clogging.
- (2) Accurate static pressure control extends equipment' life.
- (3) Available for central control of multi-exhaust.

(4) High efficiency "Jet Amp Cartridge Filter" enlarges filtering area and enhances dust release.

(5) Compact design, save space.

(6) Easy installation and maintenance.

4. Product Photo



台灣公害處理工程股份有限公司

TAIWAN ENVIRONMENTAL ENGINEERING CO., LTD.

新北市中和區連城路 258 號 15 樓之 4

15F-4, No. 258, Lian-Cheng Rd., Chung-Ho District, New Taipei City, Taiwan

TEL : +886-2-8227-1299 FAX : +886-2-8227-1289 E-mail : teec@teec.com.tw <http://www.teec.com.tw>

AIR-SPRAY FABRIC FILTER

1. Structure and Principle

Particle-carrying air is channeled via the upper part of the machine to meet with the baffle plate; the high velocity of which causes the flow to change direction. This process separates particles into various grades: coarser particles fall directly into the silo whereas the finer ones adhere to the fabric filter to achieve particle screening. Particles adhering to the fabric filter are shaken off via a high-pressure air jet, and air passed through the filter is channeled through the filter's ultra Venturi to the upper part of the machine for release by the fan.

2. Purpose

Gathering dusts from general powder dusts, and dust filtering for conveyors, casting operations, cement plants, steel plants, ceramic and chemical engineering materials, food industry.

3. Features

- (1) Ultra Jet Venturi is adopted for high-pressure air jetting to shake off dusts at an instant and deter dust from depositing to ensure optimum filtering efficiency.
- (2) Instant spray-off method translates to fixed pressure loss and less wind fluctuation for high efficiency.
- (3) Filter replacement is done from the top access, which enables easy, convenient inspection and replacement.
- (4) Filter replacement by a snap ring enables easy replacement and excellent sealing during operation.
- (5) The cycle time required is 1/10 of regular dust filter system.
- (6) High-performance solid-state tube ensures stable control for optimal performance.
- (7) Especially suitable for cleaning air of high particle concentration.

台灣新東機械股份有限公司

TAIWAN SINTONG MACHINERY CO., LTD

桃園市觀音區工業五路9號 No.9, Gongye 5th Rd., Guanyin Dist., Taoyuan City, Taiwan
TEL : +886-3-483-9966 FAX : +886-3-483-3636 E-mail : sinto@ms26.hinet.net <http://www.twsinto.com.tw>

4. Specifications and Functions

Housing material : carbon steel

Fabric filter : polyester, etc.

Model	UDC-86PR	UDC-8PR	UAC-812PR
Screen Space (m ²)	86	130	173
Filter Pipe (pcs)	48	72	96
Air Valve	6	9	12
Discharge Motor	0.4kw×4p×1set		
Machine Dimensions (mm)	A	1,330	2,042
	B	2,113	2,113
	C	8,220	8,370
	D	4,100	4,100
	E	3,120	3,270
	F	1,000	1,000
Air Consumption	120 L/min	180 L/min	240 L/min

5. Award (Certified) Items

- (1) The product meets with Japan Environmental Protection Association's "Certification" 0064 and 0065 standards.
- (2) The product is TUV certified under No. 41008253 (ISO900 : 2000).

台灣新東機械股份有限公司

TAIWAN SINTONG MACHINERY CO., LTD

桃園市觀音區工業五路 9 號 No.9, Gongye 5th Rd., Guanyin Dist., Taoyuan City, Taiwan

TEL : +886-3-483-9966 FAX : +886-3-483-3636 E-mail : sinto@ms26.hinet.net <http://www.twsinto.com.tw>

ANTI-EXPLOSION BUBBLE FILTER

1. Structure and Principle

- (1) This equipment utilizes washing and centrifugal force to capture particles in the dust-carrying air. When air passes through the S tank and mixed with water, the mixture is then sucked out by the exhaust fan.
- (2) The equipment is designed with a safety device and engineered against explosion.

2. Purpose

- (1) Foundries : particle filtering for aluminum alloy and magnesium alloy casting.
- (2) Petrochemical plants : pharmaceutical manufacturing.

3. Features

- (1) Low operating cost.
- (2) Minimum pressure loss brought by air flow fluctuation.
- (3) Simple structure makes it easy for inspection and maintenance.

4. Specifications and Functions

Model	BDC-3N	BDC-5N	BDC-7N	BDC-50N
Power Supply	220V 50/60Hz	220V 50/60Hz	220V 50/60Hz	220V 50/60Hz
Fan Motor	2.2kw×2P	3.7kw×2P	5.5kw×2P	37kw×2P
Wind Volume (m ³ / min)	30	50	75	500
Static Pressure (pa)	2,450	2,450	2,450	2,450
Tank Capacity (L)	900	1,000	1,400	5,500
Outlet No	1 outlet	1 outlet	2 outlets	11 outlets
Pressure Release Outlet No.	3 outlets	3 outlets	3 outlets	11 outlets
Equipment Dimension	A (mm)	800	1,000	1,400
	B (mm)	613	689	789
	C (mm)	Ø195	Ø250	Ø292

台灣新東機械股份有限公司

TAIWAN SINTONG MACHINERY CO., LTD

桃園市觀音區工業五路 9 號 No.9, Gongye 5th Rd., Guanyin Dist., Taoyuan City, Taiwan

TEL : +886-3-483-9966 FAX : +886-3-483-3636 E-mail : sinto@ms26.hinet.net http://www.twsinto.com.tw

SMALL PULSE-SPRAY FABRIC FILTER

1. Structure and Principle

Upon exhaust input, the inner stopper will catch larger particles and deposit it into the collector, meanwhile exhaust flow is rectified by the stopper to distribute waste-gas evenly outside of the filter, thus smaller particles in exhaust will be captured by the filter, screened, and air released and channeled to the upper gearbox and then released via the fan. The particles collected by the filter gradually accumulate to form cakes; the timer can be programmed to automatically open-air valve and introduce high-pressure air to instantly shatter the particle deposits into the bin below for dust removal.

2. Purpose

For particle filtering at foundries, mechanical shops, electronic factories, ceramic industry and petrochemical factories

3. Features

- (1) Equipped with a digital monitor for recording air volume and velocity data.
- (2) Minimum equipment space requirement for maximum filter space.

4. Award(Certified) Items

- (1) The equipment complies with Japan Environmental Association "Certification" registration No. 0064, 0065.
- (2) The equipment is TUV certified per No. 41008253 (ISO 9001 : 2000)

5. Specification and Functions

Housing Material: carbon steel sheet. Filter Material : polyester, etc.

Model	FXΠ- 7PB	FXΠ- 15PB	FXΠ- 22 PB	FXΠ- 37 PB	FXΠ- 55PB	FXΠ- 75 PB	FXΠ- 110 PB
Power	3-phase exchange 220V/50Hz or 60Hz						
Output (kw)	0.75	1.5	2.2	3.7	5.5	7.5	5.5×2
Wind volume (m³/min)	10 12	10 20 25	15 30 40	20 40 55	30 60 80	40 80 100	80 120 140
Static Pressure (mmAq)	60Hz	252 242	274 265 240	280 260 230	275 265 250	300 280 250	320 280 250
	50Hz	246 230	265 260 240	280 260 220	290 280 250	280 260 240	295 280 263
Material		Polyester					
Space (m²)	9	13	20	26	40	52	74
Electrode Count	4	6	9	12	18	24	24
W (A) ×D (B) (mm)	550×550	650×650	770×770	900×900	1,300×900	1,700×900	1,700×900
H (H) (mm)	1,593	1,765	1,785	1,850	1,916	1,971	1,971
Collector Capacity (L)	20	25	25	45	40×2	35×3	35×3
Suction Aperture (D) (mm)	φ125	φ150	φ200	φ250	φ300	φ300	φ400
Suction Position (c/m) (mm)	483/190	645/225	605/255	550/300	490/270	490/270	490/200
Compressed Air – Standard Consumption (NL/min)	15	20	20	35	40	70	80
Total Weight (kg)	170	240	320	400	500	600	750

台灣新東機械股份有限公司

TAIWAN SINTONG MACHINERY CO., LTD

桃園市觀音區工業五路 9 號 No.9, Gongye 5th Rd., Guanyin Dist., Taoyuan City, Taiwan

TEL : +886-3-483-9966 FAX : +886-3-483-3636 E-mail : sinto@ms26.hinet.net http://www.twsinto.com.tw

SMALL OSCILLATING FABRIC FILTER

1. Structure and Principle

Upon exhaust input, the inner stopper will catch the larger particles and deposit it into the collector, meanwhile exhaust flow is rectified by the stopper to distribute waste-gas evenly outside of the filter, thus smaller particles in exhaust will be captured by the filter and screened, and air released and channeled to the upper gearbox before released via the fan. The fitted oscillator then shakes off the particle deposits into the bin below for manual removal.

2. Purpose

For particle filtering at foundries, mechanical shops, electronic factories, ceramic industry and petrochemical factories.

3. Features

- (1) High filter rate.
- (2) Require small space.
- (3) Easy operation.
- (4) Easy maintenance.
- (5) Low noise.

4. Specifications and Functions

Material: Housing made of carbon steel sheet.

Filter made of silk cotton.

Filter made of silk cotton.						
Model	EXPI - 400H	EXPI - 750H/M	EXPI - 1500H/M	EXPI - 2200H/M	EXPI - 3700H/M	
Power	3-phase exchange 220V/50Hz or 60Hz					
Motor (kw)	0.4	0.75	1.5	2.2	3.7	
Wind volume (m³/min)	5	10 22	20 25 30	30 40 45	40 50 60	
Static Pressure mmAq	60Hz	280	258 245	280 270 250	265 250 238	270 260 250
	50Hz	195	250 235	265 260 250	280 260 245	290 275 245
Filter	Silk cotton					
W (A) ×D (B) (mm)	450×531	524×524	624×624	775×775	775×775	
H (mm)	740	1,280	1,380	1,740	1,740	
Bin Capacity (L)	10	20	30	20×2	20×2	
Suction Aperture (D) (mm)	ψ 100	ψ 125	ψ 200	ψ 250	ψ 250	
Suction Position (c/m) (mm)	273/185	630/160	630/164	348/224	348/224	
Oscillation Motor	Manual	Manual 0.2kw	Manual 0.2kw	Manual 0.2kw	Manual 0.2kw	
Colour	Paint 534					
Total Weight (kg)	48	110 125	155 165	225 235	235 245	

台灣新東機械股份有限公司

TAIWAN SINTONG MACHINERY CO., LTD

桃園市觀音區工業五路 9 號 No.9, Gongye 5th Rd., Guanyin Dist., Taoyuan City, Taiwan

TEL : +886-3-483-9966 FAX : +886-3-483-3636 E-mail : sinto@ms26.hinet.net http://www.twsinto.com.tw

PIPE FILTER SYSTEM

1. Structure and Principle

Upon receiving the exhaust, the interior stopper will capture and deposit coarser powders in the funnel. The passed-through gas is evenly distributed into various pipes before passing the fabric filter for capture of finer powders; clean air is then suctioned out via the fan to the stack for release. The collected powders gradually form into cakes. By using a timer, the valves are opened/closed as timed. When the valves are closed and the interior air is still, the fitted vibrator shakes the powders into the collection funnel.

Through this process, dusts in the chambers vibrate to shake off dusts along the automatic cycle ical. This process enables treatment of even the tiniest smoke haze. Finally, dusts are then released via the spiral conveyor and rotating valves.

2. Purpose

Recycle and collection of general powder dusts, foundries, cement plants, ceramic operations, petrochemical and food industries.

3. Features

Efficient shake-off for corpuscles.

4. Specifications and Functions

Model		TDC-10CR	TDC-15CS	TDC-20CS	TDC-25CS	TDC-33CS	TDC-44CS
Screen Space (m ²)		102	150	200	249	332	440
Pipe No		144	216	288	216	288	384
Oscillation Motor		0.4kw×3set	0.4kw×3set	0.4kw×4set	0.4kw×3set	0.4kw×4set	0.4kw×4set
Pipe Chamber No		3	3	4	3	4	4
Dust Release Format	Valve only	1	-	-	-	-	-
	Conveyor + Valve	1	1	1	1	1	1
	Motor	0.4kw×1set	0.75kw×1set	0.75kw×1set	0.7kw×1set	1.5kw×1set	1.5kw×1set
Gate, Cylinder, Electromagnetic Valve		3set	3set	4set	3set	4set	4set
Machine Dimensions (mm)	A	2,143	3,157	4,225	3,927	5,235	6,678
	B	2,100	2,100	2,100	3,170	3,170	3,170
	C	3,520	3,590	3,590	3,590	3,590	3,590
	D	6,380	6,600	6,600	7,520	7,520	7,820

台灣新東機械股份有限公司

TAIWAN SINTONG MACHINERY CO., LTD

桃園市觀音區工業五路 9 號 No.9, Gongye 5th Rd., Guanyin Dist., Taoyuan City, Taiwan

TEL : +886-3-483-9966 FAX : +886-3-483-3636 E-mail : sinto@ms26.hinet.net http://twsinto.com.tw

Model	TDC-55CS	TDC-66CS	TDC-83CS	TDC-99CS	TDC-120CS	TDC-130CS
Screen Space (m ²)	550	660	825	990	1,155	1320
Pipe No	480	576	720	864	1008	1152
Oscillation Motor	0.4kw×5set	0.4kw×4set	0.4kw×5set	0.4kw×6set	0.4kw×7set	0.4kw×8set
Pipe Chamber No	5	4	5	6	7	8
Dust Release	Conveyor+ Valve	1	2	2	2	3
Format	Motor	2.2kw×1set	1.5kw×1set	1.5kw×1set	2.2kw×1set	2.2kw×1set
Gate, Cylinder, Electromagnetic Valve	5set	4set	5set	6set	7set	8set
	A	8,371	9,382	11,751	14,120	16,489
Machine	B	3,170	3,170	3,170	3,170	3,170
Dimensions	C	3,590	3,590	3,590	3,590	3,590
	D	7,820	7,820	7,820	7,820	7,820

5. Award (Certification) Project

- (1) The product meets with Japan Environmental Protection Association's "Certification" 0064 and 0065 standards.
- (2) The product is TUV certified under No. 41008253 (ISO9001: 2000).

台灣新東機械股份有限公司

TAIWAN SINTONG MACHINERY CO., LTD

桃園市觀音區工業五路 9 號 No.9, Gongye 5th Rd., Guanyin Dist., Taoyuan City, Taiwan

TEL : +886-3-483-9966 FAX : +886-3-483-3636 E-mail : sinto@ms26.hinet.net <http://www.twsinto.com.tw>

ELECTROSTATIC PRECIPITATOR

1. Structure and Principle

Electrostatic precipitator applies the two opposite electric fields generated from high voltage to charge dust particles passing through it under the action of Column force, the charged particles then will move the electrode with opposite polarity and attach to the electrode plate and removed out from the airflow.

2. Purpose

When volatile or cracked oil forms oil fume, smoke or dust pollutant in industrial or cooking process and they pass through the electrostatic type smoke handling equipment (precipitator), over 90% or the pollutants can be captured effectively.

3. Features

Normal oil fog, smoke or dust particle dimensions are distributed within the range of $0.01 \sim 10\mu\text{m}$; the electrostatic type smoke handling equipment (precipitator) can perform over 90% efficiency in pollutant particles capture. Since this equipment applies module design, able to be assembled by cascade or parallel combination, it thus can be applied to clean up flue gas under various airflows and concentrations.

4. Specifications and Functions

- (1) Particulates removing rate is above 95 % (electrostatic precipitator).
- (2) Scent filtering (scent-removing stone and active carbon).
- (3) Low noise generated (noise protection facility).

5. Product Photo



台灣靜電科技股份有限公司

TAIWAN ELECTROSTATIC PRECIPITATOR TECH CO., LTD

新北市新莊區瓊林南路 116 號 No. 116, Cyonglin S. Rd., Hsin Chuang District, New Taipei City, Taiwan

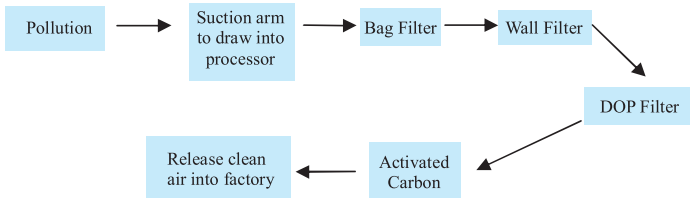
TEL : +886-2-2208-2288 FAX : +886-2-2208-3388

E-mail : service@taiwan-ep.com.tw [http:// www.taiwan-ep.com.tw](http://www.taiwan-ep.com.tw)

MOBIL AIR PURIFIER

1. Structure and Principle

The following chart illustrates the processing sequence for AW/AB lines.



2. Purpose

AW line is for processing general welding smoke.

AB line is for processing organic solvent odor, toxic gas, odor, smoke and particulates.

3. Features

- (1) Semi-auto reserve washing device offers simple operation.
- (2) Excellent purifying efficacy capable of filtering 99.7 % strong of over 0.2 μ m.
- (3) Polluted air is sucked into the equipment via a high-speed suction arm to deter operator from inhaling bad air.
- (4) Specially designed filters are capable of screening off 99 % to 0.3 mm, and also able to purify toxic gases and odors.

4. Specification and Application

- (1) Standard models.
AW - 900. AB - 2,000 / 3,000.
- (2) Customised according to environment requires approximately one month for delivery.

5. Product Photo



光騰工業科技股份有限公司

EASTON ENGINEERING INTERNATIONAL CORP.

新北市三重區重新路五段 609 巷 14 號 7 樓之 9

7F-9, No. 14, Lane 609, Sec. 5, Chung Hsin Rd., San Chung District, New Taipei City, Taiwan

TEL : +886-2-2999-5763 FAX : +886-2-2999-5764

E-mail : easton99@ms21.hinet.net http:// www.easton-eng.com.tw

OIL MIST CLEANING SYSTEM

1. Structure and Principle

- (1) Compact structure offers small but effective processing.
- (2) Removable housing for easy maintenance.
- (3) Gap between the cylinder and hub is precision calculated for optimal filtering efficiency via centrifugal function.
- (4) Curve-blade design improves wind volume.
- (5) Cone inlet design elevates collection efficacy.

2. Purpose

- (1) For maintain the clean environment.
- (2) Suitable for all types of machine tools.
- (3) Recycled fuel for reuse.

- (4) The centrifugal filter design makes it the most effective means for collecting vaporized oil or water mist.
- (5) Capture mist at the source.

3. Features

The small, compact, effective construction. The equipment operates quietly, and is equipped with advanced filter function and effective motor that reduces operating cost and creates preferred working environment.

4. Product Photo



5. Specifications and Functions

Model	Wind volume (m ³ /hr)	Voltage	Weight (kg)
FX2000	425@50Hz / 500@60Hz	0.55kw, 220/380V, 50/60Hz	16
FX3000	850@50Hz / 950@60Hz	1.5kw, 220/380V, 50/60Hz	17
FX4000	1250@50Hz / 1500@60Hz	1.5kw, 220/380V, 50/60Hz	23
FX5000	1675@50Hz / 2000@60Hz	2.2kw, 220/380V, 50/60Hz	29
FX6000	2000@50Hz / 2400@60Hz	2.2kw, 220/380V, 50/60Hz	34
FX7000	2700@50Hz	2.2kw, 220/380V, 60Hz	34

All models may be installed on machinery either horizontally or vertically, or on the floor with support.

光騰工業科技股份有限公司

EASTON ENGINEERING INTERNATIONAL CORP.

新北市三重區重新路五段 609 巷 14 號 7 樓之 9

7F-9, No. 14, Lane 609, Sec. 5, Chung Hsin Rd., San Chung District, New Taipei City, Taiwan

TEL : +886-2-2999-5763 FAX : +886-2-2999-5764

E-mail : easton99@ms21.hinet.net http:// www.easton-eng.com.tw

SPRAY-PAINT TREATMENT FACILITY

1. Structure and Principle

Arch water-curtain is designed to bolster induction and filter efficiency. It draws floating particles produced in paint-spraying into a filter chamber through suction to separate the particles from air and achieve the desired standard of air purification.

2. Purpose

Eliminate powder pollution produced in the process of paint-spraying to deter pollutants from attaching to objects of work

3. Features

- (1) Manpower saving;
productivity enhancing;
increase production capacity.
- (2) Enhance product aesthetic value.
- (3) Special water induction design and swirl filter chamber.
- (4) Keep factory neat and pleasant, create comfortable work environment.
- (5) Maintain constant humidity, prevent accidents caused by volatile materials.
- (6) Designed for capturing powder dust and organic solvent produced in spray-painting; expand water-curtain and reinforce air supply device to deter loose powder from adhering on work objects for higher product quality.

兩昌股份有限公司 LIANG CHANG CO., LTD.

南投縣草屯鎮中正路 1776 巷 8 之 6 號

No. 8-6, Lane 1776, Chung Cheng Rd., Tsaotun Town, Nahtou Hsien, Taiwan

TEL : +886-49-256-6935 FAX : +886-49-256-3653 E-mail : yishuenn@ms38.hinet.net

BAG TYPE DUST COLLECTOR

1. Structure and Principle

Dust trough filter bag by blower. For keep filter bag normal working and efficiency of front part by high pressure de-dusting.

2. Purpose

This equipment is suitable for all mills dust pollution.

3. Features

This equipment is automatic de-dusting, working time depends on your necessary.

4. Specifications and Functions

Q : 8,000 m³ / min 、 SP : 400 mmAQ 、

M : 30 hp ~ 1,250 hp 、 N : 890

金風機械股份有限公司 KING FOON MACHINERY CO., LTD

台中市烏日區溪南路一段 197 巷 57 號

No. 57, Lane 197, Sec. 1, His Nan Rd. Wurih District, Taichung City, Taiwan

TEL : +886-4-2335-2999 FAX : +886-4-2335-3298

E-mail : kingfoon@ms37.hinet.net <http://www.king-foon.com.tw>

STEELWORKS ARC FURNACE DUST-COLLECTING EQUIPMENT

1. Structure and Principle

Structure:

- (1) Work of Main frame:
 - A. It's available for 8 sets ~ 10 sets or 16 sets to assemble an entire frame in the dust-collecting room.
 - B. It's able to control the dust-collecting and the dust-removing in each dust-collecting room.
 - C. There is an H-shaped steel with the structure of 200×200 being assembled by L3" and reinforced materials.
 - D. The surface is placed by a powder coating plate with soundproof and heatproof effects.
- (2) Dust Vacuuming Windpipe: SS41 6t, $D = \Phi 3,000$, $\Phi 2,400$, $\Phi 2,000$.
- (3) Dust Vacuuming Windpipe: SS41 3~4t, It's set up according to the work site.
- (4) Burning Tower: SS41 9t, 12t, 15t.
- (5) Cooling Tower: SS41 9t, 12t.

Principles:

- (1) During the process in smelting the steel, there will be able to produce a great deal of powder to go to the surroundings of the factory, and the temperature also reaches more than 1,500 °C.

Therefore, it will suck and conduct into the burning tower at the furnace inlet from the dust vacuuming location to burn the carbon monoxide again and lower its temperature, and then, getting rid of bigger granules to conduct into the cooling tower for lowering the temperature at the second time. After removing the granules to conduct into the second windpipe to be cooled until the temperature is getting down and entered inside the dust collecting room.

As a result, it can keep the safety and the life of clothing pipe and reach the effect of collecting dust by such a process.

金風機械股份有限公司 KING FOON MACHINERY CO., LTD

台中市烏日區溪南路一段 197 巷 57 號
No. 57, Lane 197, Sec. 1, His Nan Rd. Wurih District, Taichung City, Taiwan
TEL : +886-4-2335-2999 FAX : +886-4-2335-3298
E-mail : kingfoon@ms37.hinet.net <http://www.king-foon.com.tw>

- (2) The dust that bursts from the cover of the furnace is able to be sucked into the windpipe by means of the air cover on the top. Both the ambient temperature and the temperature on the top will lower the temperature for each other without double-layer pipes, which only conducts into the dust-collecting room to remove the dust by means of a single-layer pipe.
- (3) Various systems in the dust-collecting room is available for setting the frequency and the speed according to the time, and the temperature in the dust-collecting room can be adjusted properly in accordance with the practical requirements.

2. Purpose

- (1) Arc furnace dust-collecting in the steelworks.
- (2) Collect and remove the mine dust pollution at each plant.

3. Features

Oversized dust-collecting equipment. A model of fan performance pipeline layout air cover. Back washing operation to the flow speed. The repair system of silo separation is flexible either big or small. And it depends on the demand to select the filter materials and set to keep the energy and the frequency for the bag, as well as stabilizing the pressure of the system in order not to result in the improper dust cleaning. We have a complete planning system for the above features.

4. Specification and Functions

- (1) Type : back washing, vibration and pulse.
- (2) Dust Vacuuming Fan Horse Power : 5 hp ~ 1,750 hp.

金風機械股份有限公司 KING FOON MACHINERY CO., LTD

台中市烏日區溪南路一段 197 巷 57 號
No. 57, Lane 197, Sec. 1, His Nan Rd. Wurih District, Taichung City, Taiwan
TEL : +886-4-2335-2999 FAX : +886-4-2335-3298
E-mail : kingfoon@ms37.hinet.net <http://www.king-foon.com.tw>

MOBILE DUST COLLECTOR

1. Structure and Principle

The model easy and convenient beauty can move to the position that need to be collected pollution source at any time. And can fit extra inlet for more machines.

2. Purpose

- (1) Mobile design to collect dust at different pollution points.
- (2) Designed for all types of dry wood dust from all popular woodworking machines.

3. Features

- (1) Reduce toxic hazardous dust in the air at workplace.
- (2) Powerful motor with efficient fan.
- (3) Pleated filter with large filter area.

- (1) Vacuum gauge shows the air flow status.
- (2) Pleated filter and plastic dust bag protected by metal tank from damage. Prompt assembly and easy maintenance.
- (3) See through glass for checking the dust level in the dust bag.
- (4) Cleaning filter by turning the brush inside the filter housing.

4. Product Photo



5. Specification and Functions

Model No.	DC-102	DC-103	DC-105
Motor	2 hp	3 hp	5 hp
Air volume (CFM)	26 m ³ /hr (916 CFM)	32.2 m ³ /hr (1136 CFM)	47.7 m ³ /hr (1683 CFM)
Filter Area	4,348 cm ² (674 in ²)	5,809 cm ² (900 in ²)	8,177 cm ² (1,267 in ²)
Bag volume	0.09 m ³ (3.2 ft ³)	0.12 m ³ (4.3 ft ³)	0.16 m ³ (5.76 ft ³)
Sound Rate	53 dB(A)	67 dB(A)	82 dB(A)
Inlet Diameter	100 mm (4") x 1	125 mm (6") x 1 Or with extra inlet 100 mm (4") x 2	125 mm (6") x 1 Or with extra inlet 100 mm (4") x 2
Overall Dimension	1,220 mm ×506 mm ×1,440 mm	1,232 mm×540 mm ×1,604 mm	1,400 mm ×621 mm × 1,750 mm
Net weight	95 kg (209 lbs)	116 kg (255 lbs)	136 kg (300 lbs)

封固企業股份有限公司 FENG GUH ENTERPRISE CO., LTD

高雄市前鎮區新衙路 286 之 9 號 4 樓之 1 4F-1, No. 286-9, Hsin-Ya Rd., Kaohsiung, Taiwan

TEL : +886-7-822-2918 FAX : +886-7-812-3938

E-mail : fengguh@ms8.hinet.net http : //www.feng-guh.com.tw

PULSE – HIGH TEMPERATURE BAG FILTER HOUSE

1. Structure and Principles

The principle used for this filter is similar to that of a cartridge type dust gatherer. When waste-gas containing dust enters into the dust gatherer and flows through the stopper board and deflector, the gas will be evenly distributed on the outside of each filter bag and turn the dust into cake form. The machine then activates the solenoid valve (its reverse-washing time is configured by the procedure controller) to push the compressed air (5kg/m^2) through the venture tube and generate pulsation waves. The pulsation waves then shake the dust to the bottom of the dust gatherer and extract the dust out through the releasing valve. Due to the fact that high-temperature waste gas is sometimes sticky, a pre-powdered system must be in place to protect the filter bags.

2. Purpose

Chemical-petroleum plants, bituminous mixing plants, ceramic plants, recycling plants, and waste incinerators.

3. Features

- (1) Filtered gas meets the environmental protection standards.
- (2) The powder is recyclable to prevent wastage.
- (3) The filter bags are designed to be pulled out upward for replacement, so workers will not be contaminated.

4. Product photo



封固企業股份有限公司 FENG GUH ENRPRISE CO., LTD

高雄市前鎮區新街路 286-9 號 4 樓之 1 4F-1, No. 286-9, Hsin-Ya Rd., Kaohsiung, Taiwan
TEL: +886-7-822-2918 FAX: +886-7-812-3938 E-mail: fengguh@ms8.hinet.net <http://www.feng-guh.com.tw>

PULSE-CARTRIDGE FILTER HOUSE

1. Structure and Principle

Through pressure or suction, particle-carrying gas is sent from the pollution source to the system, and filtered clean air is then released into the atmosphere via suction equipment. Powders or ashes attached to the exterior of the filter tubes are shaken off by using the procedure controller; for which, the wash time is set to trigger the electromagnetic valve, which sends 5kg/cm^2 of compressed air instantly through the Venturi pipe and spray into the filter tube to cause shockwaves. The auto trigger-on interval of each electromagnetic valve can be set according to particle concentration and variety to achieve continuous operation.

2. Purpose

Asbestos, fertilizer, feed industry, PVC, rubber grinding, powder conveyance, powder grinding, mixing, sandblasting, ceramics, tiles, powder coating, leather, pigments, paper industry, cement, coal, plywood, wooden products, petrochemical raw materials.

3. Features

- (1) Prefabricated design, simple structure.
- (2) High screening efficiency, low pressure loss.
- (3) Replacement of filter tubes can be carried out externally without requiring personnel entry into the system, offering simple and easy maintenance.
- (4) Small equipment size, large treatment capacity, requiring large installation space.

4. Specifications and Functions

Material : the body is made of stainless steel or carbon steel.

Filter material: PE, Teflon, PP, Aramid, Polyamide, polyester.

- (1) Wind volume : $5 \sim 1,000 \text{ m}^3/\text{min}/\text{unit}$.
- (2) Treatment temperature : max 100°C .
- (3) Choices of body material and filter material to suit various needs

封固企業股份有限公司 FENG GUH ENTERPRISE CO., LTD

高雄市前鎮區新衙路 286 之 9 號 4 樓之 1 4F-1, No. 286-9, Hsin-Ya Rd., Kaohsiung, Taiwan

TEL : +886-7-822-2918 FAX : +886-7-812-3938

E-mail : fengguh@ms8.hinet.net [http : //www.feng-guh.com.tw](http://www.feng-guh.com.tw)

Specification:

Model	Screen Surface (m ²)	Tube Count	EM Valve Count	Horsepower (hp)
T-1	5	1	1	0.5
T-4	20	4	2	2
T-9	45	9	3	5
T-12	60	12	4	5.5
T-16	80	16	4	7.5
T-20	100	20	5	10
T-25	125	25	5	15
T-30	150	30	6	15
T-35	175	35	7	15
T-40	200	40	8	20
T-50	325	50	10	30
T-60	300	60	12	30
T-75	375	75	15	40
T-100	500	100	20	50
T-125	625	125	25	60
T-150	750	150	30	75

5. Product photo



封固企業股份有限公司 FENG GUH ENTERPRISE CO., LTD

高雄市前鎮區新街路 286 之 9 號 4 樓之 1 4F-1, No. 286-9, Hsin-Ya Rd., Kaohsiung, Taiwan

TEL : +886-7-822-2918 FAX : +886-7-812-3938

E-mail : fengguh@ms8.hinet.net http : //www.feng-guh.com.tw

PULSE JET FILTER

1. Structure and Principle

The dirt is getting into from dust collection machine. A fender can apply an airflow distributing whole place and using a deep bed filter to collect. Fresh air exhaust up outside, every deep bed filter is use program control utensils to exhaust outside.

2. Purpose

Dry powders produced in all kinds of manufacture procedure can be collected.

3. Features

- (1) At least ninety-nine percent of dust collection efficiency is. Achieved.
- (2) The filter bags are highly breathable and capable of treating massive amount of wind volumn.
- (3) Easy to maintain and disassemble; Long usage life.

4. Specifications and Functions

Filter area : 10 ~ 600 m².

5. Product Photo



高幟通風工程股份有限公司

GOLDEN FLAG VENTLATION IND CO., LTD

台中市南屯路二段 860 巷 37 號 No. 37, Lane 860, Nantun Rd., Sec.2, Taichung City, Taiwan
TEL : +886-4-2389-8928 FAX : +886-4-2389-9053 E-mail : gfan8928@ms37.hinet.net

WET SCRUBBER

1. Structure and Principle

Waste gas goes through the closed liquid layer, enabling thorough gas/liquid contact.

Liquid affinity is then used to absorb and collect waste gas to achieve cleansing. This system also use irregular substance to increase time and area of gas/liquid contact for maximum effect.

2. Purpose

Gas absorb, neutralize, rid of dirt and odor, and clarify.

3. Features

- (1) Use P.P., PVC to manufacture, the age is longer.
- (2) A consumption of liquid is less.
- (3) Collected effect is better.
- (4) Consumption is not obstructing.

4. Specifications and Functions

- (1) Capacity : 20 ~ 1,000 m³/min.
- (2) Dimension : 0.6 ~ ~4 m.

5. Product Photo



高幟通風工程股份有限公司

GOLDEN FLAG VENTILATION IND CO., LTD

台中市南屯路二段 860 巷 37 號 No. 37, Lane 860, Nantun Rd., Sec. 2, Tachang City, Taiwan

TEL : +886-4-2389-8928 FAX : +886-4-2389-9053

E-mail : fgan8928 @ms37.hinet.net <http://www.goldengroups.com>

AIR PURIFICATION SYSTEMS

1. Structure and Principle

By combining wet scrubbing and AOP technologies, ecAir is able to remove particulate matter, gaseous pollution, such as SO_x and NO_x, and volatile organic compounds (VOCs) with very high efficiency. Wet scrubber first diffuse pollutants into liquid phase, AOP then decompose pollutants into CO₂ & H₂O in the liquid.

2. Purpose

Degradation of volatile organic compounds (VOCx) and PM2.5 in the air on-site, so that the treated air reaches the air pollution prevention standard.

3. Features

- (1) No chemicals added.
- (2) No wastewater produced.
- (3) No consumable parts.
- (4) Oxygen-enriched clean air.

4. Product Photo



氫創股份有限公司 HYDRON INNOVATION INC.

桃園市中壢區青峰路 2 段 112 號

No. 112, Sec.2, Qingfeng Road, Zhongli Dist. Taoyuan, Taiwan

TEL : +886-3-287-3267 FAX : +886-3-287-3507

E-mail : Sherry.huang@hydron-inno.com.tw <http://www.hydron-inno.com.tw>

ELECTROSTATIC PRECIPITATOR

1. Structure and Principle

ESP is the use of charge principle that opposites attract, and the applied pressure and the formation of two polar opposite of the electric field, under the action of the Coulomb force, so that soot particles after the charge sheet to the movement of dust attached to the dust, and thus to achieve clean the purpose of the air.

2. Purpose

Effective treatment of industrial, catering and domestic kitchen smoke pollution generated through efficient processing purified before discharge. Business owners to solve problems.

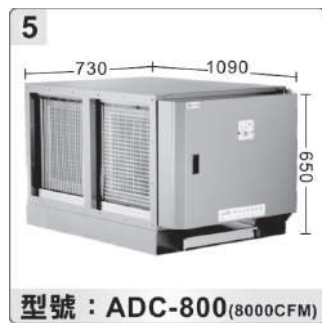
3. Features

- (1) High efficiency air pollution control.
- (2) Design and installation of flexible.
- (3) Treatment to follow-site design.
- (4) Meet the highest standards of environmental protection.
- (5) No secondary pollution.
- (6) Using less supplies and reduce energy consumption.

4. Specifications and Functions

Disposal sites according to the amount of wind may be, to do a combination of fixed models (unlimited portfolio required)

5. Product Photo



清三環境科技股份有限公司

CHING SAN ENVIRONMENT TECHNOLOGY CO., LTD.

新北市泰山區中山路三段 91 巷 2 號

No. 2, Lane 91, Sec. 3, Zhong Shan Rd., Taishan Shang District, New Taipei City, Taiwan

TEL : +886-2-2906-3338 Fax : +886-2-2901-5338 E-mail : tiger.go@msa.hinet.net http://www.lcst.com.tw

AUTOMATIC PULSE JET BAG FILTER

1. Structure and Principle

Cleaning of Bag Filter

The dust-laden air is drawn on to the filter bags, where the dust is retained on the outer surface of the bag. To maintain continuous operation each row of bags must be regularly cleaned. In this system cleaning operation is achieved by reverse jet of compressed air. The electronic time sequential controller activates each pilot valve in sequence at predetermined intervals on a continuous cycle. The pilot valve in turn opens the diaphragm valve. The multi-nozzle jet tube through the insert header into the filter bag releases a short burst of compressed air. The accumulated dust or dust cake is dislodged from the bag surface and falls into a collection hopper beneath. Following figures show the cleaning cycle of filter bag and operation of solenoid valve and diaphragm valve.

2. Purpose

- (1) Chemical & Food Industries : Grinder, Mixer, Conveyor, Silo inlet, Bag filling.

- (2) Ceramic industries : Crusher, Mixer, Press, Conveyor.
- (3) Machinery industries : Grinder, Lathe, Polishing, Welding.
- (4) Wood & Furniture industries : Sawing, Wood planning, Sanding.
- (5) Fertilizer industries : Silo inlet, Conveyor, Mixer, Bag filling.

3. Features

- (1) Highest filtration efficiency.
- (2) No moving parts in mechanism makes it the least maintenance.
- (3) Reduce volume of collector unit.
- (4) High air to cloth ratio.
- (5) Constant and small pressure drop across filter achieves constant and large air volume.
- (6) Total pressure across collecting unit is low Reduce bag wear.
- (7) Widely applicable for the recovery equipment of various industries.

貫能技術工程有限公司

FAIR TECHNICAL ENGINEERING CO., LTD

台北市中正區和平西路一段 80 號 11 樓之 5 11-5F, No. 80, Sec. 1, Ho Ping W. Rd., Taipei, Taiwan,

TEL : +886-2-2367-7070 FAX : +886-2-2365-9024

E-mail : fair.tech@msa.hinet.net <http://www.fairtech.url.tw>

4. Specifications and Functions

Specification Model No.	Filter area (m ²)	No. of filter dag	No. of solenoid valves	Approx wt. (kg)	Dimension	Comp Air	
						Max	Min
JBF-50	54	48	6	2,600	1,500	0.44	0.24
JBF-80	81	72	9	3,200	2,100	0.63	0.37
JBF-100	108	96	12	4,000	3,000	0.80	0.46
JBF-130	135	120	15	5,000	3,900	1.02	0.58
JBF-160	162	144	18	5,600	4,500	1.19	0.68
JBF-190	190	168	21	6,000	5,400	1.41	0.80
JBF-220	217	192	24	6,650	6,000	1.62	0.92
JBF-240	244	216	27	4,700	6,900	1.82	1.03
JBF-270	271	240	30	8,000	7,500	1.99	1.14
JBF-300	299	264	33	8,600	8,400	2.20	1.26
JBF-320	326	288	36	9,200	9,000	2.42	1.38
JBF-350	353	312	39	10,000	9,900	2.63	1.50
JBF-380	380	336	42	11,000	10,500	2.80	1.60
JBF-400	407	360	45	11,800	11,200	3.00	1.72
JBF-430	434	384	48	12,200	12,000	3.17	1.82
JBF-460	461	408	51	13,000	12,900	3.38	1.93

5. Product Photo



貫能技術工程有限公司

FAIR TECHNICAL ENGINEERING CO., LTD

台北市中正區和平西路一段 80 號 11 樓之 5 11-5F, No. 80, Sec. 1, Ho Ping W. Rd., Taipei, Taiwan,

TEL : +886-2-2367-7070 FAX : +886-2-2365-9024

E-mail : fair.tech@msa.hinet.net http://www.fairtech.url.tw

CENTRIFUGAL VENTURI SCRUBBER

1. Structure and Principle

The special mist area in the interior provides a large contact surface and longer contact time. The gas absorption rate is greater than a venturi scrubber. Its efficiency is closer to regular filler reactors. For treatment of indissoluble powders in flue gas or where emulsion or crystallization may occur, centrifuge is the best solution, as the interior has no parts to block air flow, nor clogging/filling in the nozzles. At the same time, the swirl keep the tank interior clean through continuous washing. When flue gas carries dust powders or crystals that standard filler scrubber cannot be employed, centrifugal venture washing tower is an effective solution.

Using the centrifugal venture washing tower to treat flue gas produced from boilers or incinerators is an exemplary illustration, as the flue gas simultaneously carries smoke and chemical gases.

2. Purpose

Fine mist is produced by centrifugal contact and reacts with flue gas in opposite direction, which enables more effective dust collection than other types of wet scrubber.

3. Features

- (1) Lower pressure loss.
- (2) Less water consumption.
- (3) Less space requirement.
- (4) Lower installation cost.
- (5) Lower maintenance.

4. Specifications and Functions

MODEL NO.	H (mm)	D (mm)	Weight (kg)
0111	1,800	580	380
0206	2,000	760	500
0302	2,400	965	620
0310	2,650	1,170	850
0405	2,850	1,350	1,210
0501	3,300	1,550	1,650
0509	3,700	1,750	1,800
0604	4,050	1,930	2,050
0700	4,500	2,140	2,500
0707	4,800	2,310	2,850
0803	5,040	2,520	3,410
08 1	5,400	2,720	3,800
0906	5,800	2,900	4,200
1002	6,250	3,100	4,780
1010	6,400	3,300	5,320
1105	6,600	3,480	6,200

5. Product Photo



貴能技術工程有限公司

FAIR TECHNICAL ENGINEERING CO., LTD

台北市中正區和平西路一段 80 號 11 樓之 5 11-5FL, No. 80, Sec. 1, Ho Ping W. RD. Taipei, Taiwan,

TEL : +886-2-2367-7070 FAX : +886-2-2365-9024

E-mail : fair.tech@msa.hinet.net http://www.fairtech.url.tw

HIGH AREA PULSE JET BAG FILTER

1. Structure and principle

Cleaning of Bag Filter The dust-laden air is drawn on to the filter bags, where the dust is retained on the outer surface of the bag. To maintain continuous operation each row of bags must be regularly cleaned. In this system cleaning operation is achieved by reverse jet of compressed air. The electronic time sequential controller activates each pilot valve in sequence at predetermined intervals on a continuous cycle. The pilot valve in turn opens the diaphragm valve. The multi-nozzle jet tube through the insert header into the filter bag releases a short burst of compressed air. The accumulated dust or dust cake is dislodged from the bag surface and falls into a collection hopper beneath. Following figures show the cleaning cycle of filter bag and operation of solenoid valve and diaphragm valve.

2. Purpose

- (1) Electronics : CNC drilling, Routing, Cutting, Laminating, V-cut.
- (2) Chemical & Food Industries : Grinder, Mixer, Conveyor, Silo inlet, Bag filling.
- (3) Ceramic industries : Crusher, Mixer, Press, Conveyor.
- (4) Machinery industries : Grinder, Lathe, Polishing, Welding.
- (5) Wood & Furniture industries : Sawing, Wood planning, Sanding.
- (6) Fertilizer industries : Silo inlet, Conveyor, Mixer, Bag filling.

3. Features

- (1) Highest filtration efficiency.
- (2) Small Volume and small footprint.
- (3) Constant exhaust air volume.
- (4) High filter area, Low press drop.
- (5) Widely applicable for dust collecting of various industries.

貫能技術工程有限公司

FAIR TECHNICAL ENGINEERING CO., LTD

台北市中正區和平西路一段 80 號 11 樓之 5 11-5F, No. 80, Sec. 1, Ho Ping W. Rd., Taipei, Taiwan,
TEL : +886-2-2367-7070 FAX : +886-2-2365-9024
E-mail : fair.tech@msa.hinet.net <http://www.fairtech.url.tw>

4. Specifications and Functions

	Filter area (m ²)	No. of filter element	No. of solenoid valves	Dimension A (mm)	Dimension B (mm)	Approx. wt (kg)
CEF-24	24	6	3	1,000	850	500
CEF-36	36	9	3	1,000	1,850	800
CEF-48	48	12	4	1,150	1,850	850
CEF-60	60	15	5	1,250	1,850	900
CEF-72	72	18	6	1,350	1,850	950
CEF-100	96	24	8	1,550	1,850	1,020
CEF-120	120	30	10	1,750	1,850	1,100
CEF-140	144	36	12	2,000	1,850	1,200
CEF-160	156	39	13	2,100	1,850	1,250
CEF-180	180	45	15	2,350	1,850	1,350
CEF-200	192	48	16	2,450	1,850	1,400
CEF-300	300	75	25	3,450	1,850	1,750
CEF-400	396	99	33	4,300	1,850	2,100
CEF-500	504	126	42	5,300	1,850	2,500
CEF-600	600	155	50	6,200	1,850	2,850
CEF-700	708	177	59	7,150	1,850	3,200

貴能技術工程有限公司

FAIR TECHNICAL ENGINEERING CO., LTD

台北市中正區和平西路一段 80 號 11 樓之 5 11-5F, No. 80, Sec. 1, Ho Ping W. Rd., Taipei, Taiwan,
TEL : +886-2-2367-7070 FAX : +886-2-2365-9024
E-mail : fair.tech@msa.hinet.net <http://www.fairtech.url.tw>

MULTI-CYCLONE DUST COLLECTOR

1. Structure and Principle

Operation of the multi-cyclone tube element is similar to that of standard cyclones except for higher collection efficiency brought by increased centrifugal force action and optimum tube diameter.

Multi-cyclone duct collector occupies less space than standard cyclones, especially when handling large air volume; the height of multi-cyclone is lower than standard cyclone.

Pressure drop of a multi-cyclone is less than a standard cyclone with the same collecting efficiency. Lower fan pressure and lower power consumption is required.

Modular housing designed with variable inlets and outlets makes this multi-cyclone ideal for new installation or as an add-on to existing systems.

2. Purpose

- (1) Combustion & Drying :
Boilers, Incinerators, Kilns, Spray Dryers, Fluid Bed Dryers, Pre-Cleaners.
- (2) Chemical Industries : Grinders, Mixers, Conveyors, Silo Inlet, Bag Filling.
- (3) Machinery Industries :
Grinder, Lathe, Polishing.
- (4) Wood & Furniture Industries : Sawing, Wood Planning, Sanding.
- (5) Fertilizer Industries : Silo Inlet, Conveyor, Mixer, Bag Filling.
- (6) Steel Industries, Foundries, Mining Industries, Cement Plants, ceramic Industries.

3. Features

- (1) Minimum maintenance, no moving parts
- (2) Compact design saves valuable space and is easy to install.
- (3) Versatile assembly according to requirements
- (4) Wide application throughout the plant.

貫能技術工程有限公司

FAIR TECHNICAL ENGINEERING CO., LTD

台北市中正區和平西路一段 80 號 11 樓之 5 11-5F, No. 80, Sec. 1, Ho Ping W. Rd. Taipei, Taiwan,
TEL : +886-2-2367-7070 FAX : +886-2-2365-9024 E-mail : fair.tech@msa.hinet.net

4. Specifications and Functions

Specification Model No.	A	B	C	D	Inlet Dimension	Exit Dimension
FMC-22	950	950	1,850	560	950 × 80	300 × 150
FMC-32	950	1,325	1,850	980	950 × 75	300 × 220
FMC-33	1,325	1,325	2,000	980	1,325 × 120	400 × 250
FMC-43	1,325	1,700	2,000	1,400	1,325 × 150	400 × 330
FMC-44	1,700	1,700	2,150	1,400	1,700 × 175	600 × 300
FMC-54	1,700	2,075	2,150	1,800	1,700 × 200	600 × 375
FMC-55	2,075	2,075	2,300	1,800	2,075 × 220	700 × 400
FMC-65	2,075	2,450	2,300	2,200	2,075 × 250	800 × 550
FMC-66	2,450	2,450	2,450	2,200	2,450 × 260	900 × 450
FMC-76	2,450	2,825	2,450	2,600 (1,400 × 2)	2,450 × 280	900 × 500
FMC-77	2,825	2,825	2,600	2,600 (1,400 × 2)	2,825 × 300	1,100 × 500
FMC-87	2,825	3,200	2,600	3,025 (1,800 × 2)	2,825 × 330	1,100 × 600
FMC-88	3,200	3,200	2,750	3,025 (1,800 × 2)	3,200 × 350	1,300 × 550
FMC-98	3,200	3,575	2,750	3,450 (2,200 × 2)	3,200 × 375	1,300 × 650
FMC-99	3,575	3,575	2,900	3,450 (2,200 × 2)	3,575 × 400	1,300 × 700
FMC-1009	3,575	3,950	2,900	3,900 (2,600 × 2)	3,575 × 420	1,400 × 700
FMC-1010	3,950	3,950	3,050	3,900 (2,600 × 2)	3,950 × 450	1,400 × 800

真能技術工程有限公司

FAIR TECHNICAL ENGINEERING CO., LTD

台北市中正區和平西路一段 80 號 11 樓之 5 11-5F, No. 80, Sec. 1, Ho Ping W. Rd. Taipei, Taiwan,

TEL : +886-2-2367-7070 FAX : +886-2-2365-9024 E-mail : fair.tech@msa.hinet.net