

CLEAN AIR SYSTEM
AIRTECH21[®] CO., LTD
www.airtech21.co.kr



Total Environment

AIRTECH21 CLEAN AIR SYSTEM can be used in all workplace where polluted indoor air needs to be filtered.



벤처확인기업
20080102217

중소기업 기술혁신 협회
INNOBIZ CE

COMPANY INTRODUCTION

Various hazardous substances which occur in industrial sites are a social issue because they pollute the environment and have great impact on operators' health.

AIRTECH 21 will contribute to creating a safe and clean operational environment by producing the best precipitator with a philosophy in which a clean and safe operational environment without harmful substances is the foundation for the health of individuals and the social peace.

Based on the establishment philosophy, AIRTECH 21 has tried to constantly research to produce the excellent precipitator and move customers with differentiated service, and as a result, we have become the competitive company among various companies already occupying the market.

Now, AIRTECH 21 develops technologies such as high-efficient filter, highly advanced precipitation method, etc. and exports various products to different countries for the first time in Korea. Also, it retains patents, utility models, registration of design, CE certificates, ISO certificates, etc.

AIRTECH 21 will do our best to be the company which is reliable and creates new values through steady development of technologies and consistent management innovation.

TECHNOLOGY & PERFORMANCE

2000	01. Established AIRTECH 21
2001	02. Applied utility model relevant to IONIZER <No. 2002 - 0020020>
2002	07. Transited to incorporation as AIRTECH 21 Co., Ltd 10. Registered POWER PACK to utility model <No. 0293402> 10. Registered utility model relevant to COLLECTOR CELL <No. 0292649> 12. Exported electrostatic precipitators first time in Korea (50SET to Shenyang, China)
2004	03. Developed the OIL MIST removal device of bolt factories
2005	01. Developed the smoke removal device of meat smoking
2006	06. Registered utility model relevant to COLLECTOR CELL <No. 20 - 0419305> 11. Acquired ISO 9001:2000 <JAS-ANZ>
2007	05. Registered patents relevant to COLLECTOR CELL UNIT of electrostatic precipitator <No. 10 - 0722863>
2008	05. Certified INNOBIZ <No. 20080102217>
2010	01. Acquired ISO 9001:2008 <International Certification Registrar> 01. Exported to Brazil (METALURGICA HASSMANN S.A) 02. Exported to Thailand (MAHAJAK AUTOPARTS CO.,LTD) 05. ATC-1200, ATC-1800, ATC-3600 CE Certificate
2011	04. Exported to Germany (FRIEDBERG) 05. Established the 2nd plant
2013	06. Awarded KOTRA Chang Po Go prize 12. Awarded Tower of A Million Dollar Export
2014	10. Moved to new headquarters 12. Selected as Gyeonggi-do Excellent Environmental Company

MAJOR BUSINESS ITEMS

- Double Step Charging-Type Electrostatic Precipitator
- BAG FILTER
- WET SCRUBBER
- CYCLONE
- MULTICYCLONE
- A/C TOWER
- A·H·U
- CLEAN ROOM
- Maintaining various precipitators and managing service
- Installing new DUCT and supplementary construction



CERTIFICATE



Certificate for Business Registration



Venture Business Confirmation



INNOBIZ Confirmation



Utility Model Registration



Utility Model Registration



Utility Model Registration



Patent



ISO 14001:2004



ISO 9001:2008



CE (ATC-1200)



CE (ATC-1800)



CE (ATC-3600)



Excellent Environmental Company Appointment



SYSTEM OVERVIEW

AIRTECH21 CLEAN AIR SYSTEM can be used in all workplaces where polluted indoor air needs to be filtered.

APPLICATION RANGE OF AIRTECH21 CLEAN AIR SYSTEM

This SYSTEM can be applied in all workplaces where polluted indoor air due to different reasons needs to be filtered. Usually, if particle size is less than 0.01μ , AIRTECH21 CLEAN AIR SYSTEM can be applied effectively, and it can be applied to treat those below.

- Oil Mist / Smoke - BOLT / NUT processing
- NC lathe, NC MILLING, FORMING M/C
- Tobacco Smoke
- CALENDER process, TENTER process
- Poisonous Gas
- Diesel Smoke
- Rubber Dust / Grinding Dust / Plastic Dust
- Other Smell
- Other Smoke / Dust

CHARACTERISTICS OF ATC SERIES

ATC SERISE - ORDER SPECIFICATION

- Customized products available ranging from at least $10\text{m}^3/\text{min}$ to $5,000\text{m}^3/\text{min}$
- Installing TANDEM TYPE (DOUBLE PASS TYPE) or TRIPLE PASS TYPE according conditions of pollution sources. (vinyl, wall paper, flooring, safety net, manufacturing process, etc)
- Alteration of FAN & MOTOR specification according to installing conditions of DUCT
- The lowest price for installing electrostatic precipitators in and out of the country
- Compatible parts with imported electrostatic precipitators

ATC SERISE - BASIC SPECIFICATION

- Standardized at least from $20\text{m}^3/\text{min}$ to $200\text{m}^3/\text{min}$
- Embedded FAN MOTOR (Integral type or External type)
- No concern for corrosion due to electro deposition coating (exterior)
- Inverter operation available (OPTION)
- Indoor installation available



New Technology

Active introduction of developed new technology and new technique



Quality

Customer satisfaction with the excellent quality

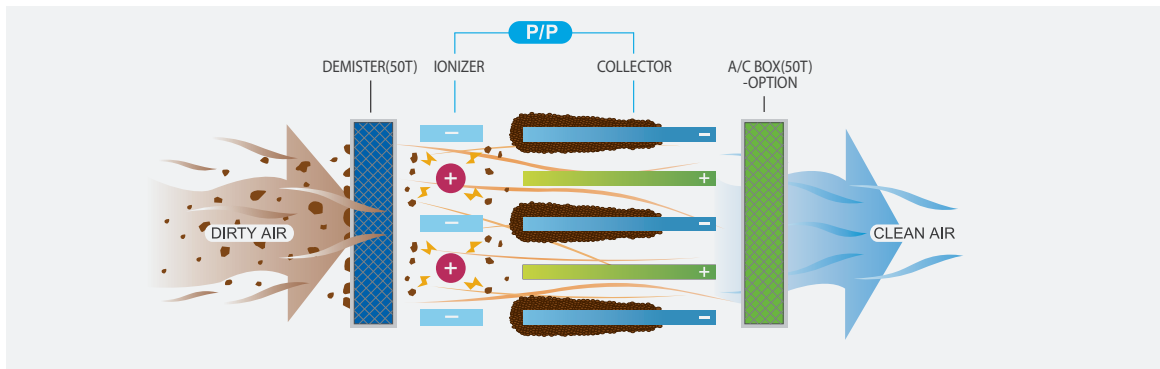


Cost reduction

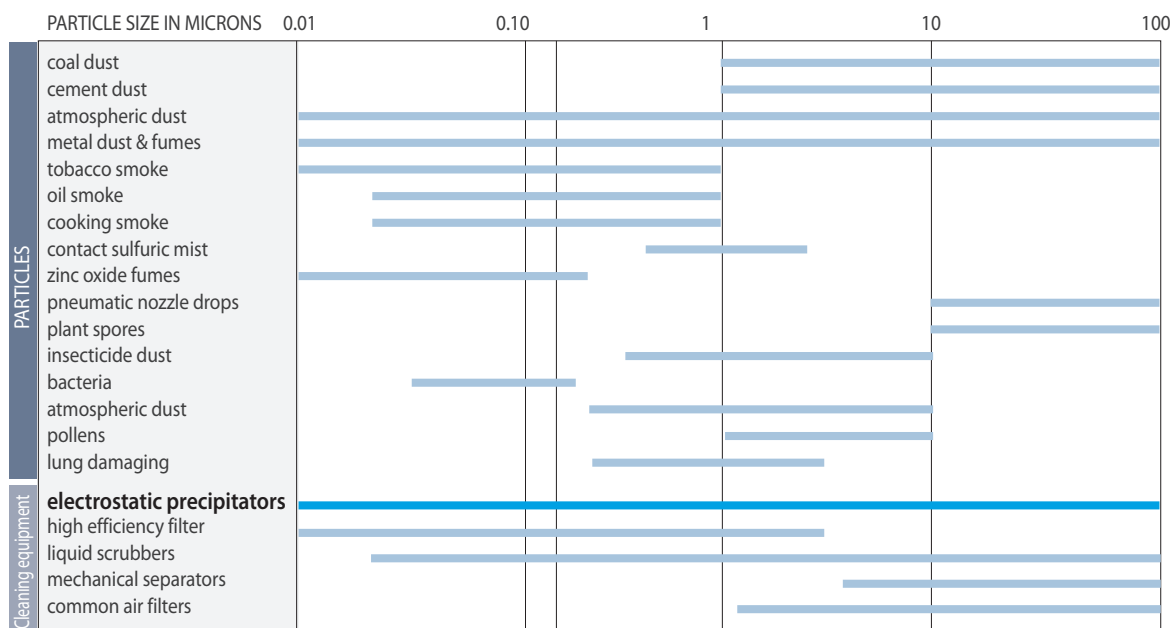
Realization of Customer surprise with cost reduction and on-time delivery



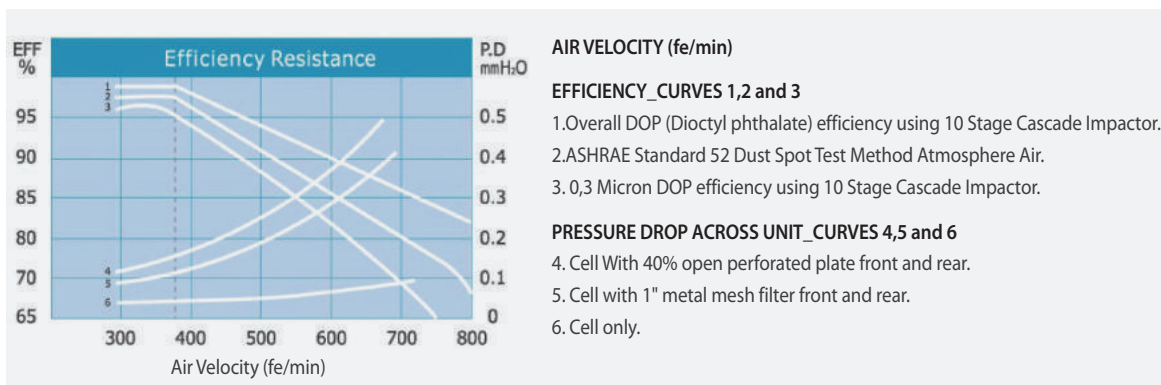
OPERATION PRINCIPLES OF DOUBLE STEP CHARGING-TYPE ELECTROSTATIC PRECIPITATOR



PARTICULATE SIZE



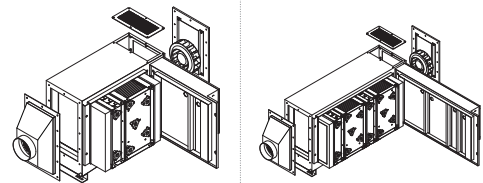
ELECTROSTATIC EFFICIENCIES AND PERFORMANCE



Small-Sized Electrostatic Precipitator ATC-1200 (10~20m³/min)



Layout



ATC-1200

ATC-1200D



SPECIFICATION

Model No.	Unit Type	Dimension			Unit Q'ty	Air Capacity(max)	Power Input	Volt /Phase
		B	W	H				
ATC-1200	Single	480	765	650	1	20m ³ /min x 70mmAq	0.25KW	220/1Ø
ATC-1200D	Double	480	1160	650	2	20m ³ /min x 70mmAq	0.25KW	

※ Separate inquiry is required on Size & Type because HOPPER Part is optional.

※ ATC-Series has integral-type Fan & Motor. If requested, they can be removed.

Installation Figures



ATC-1200

ATC-1200

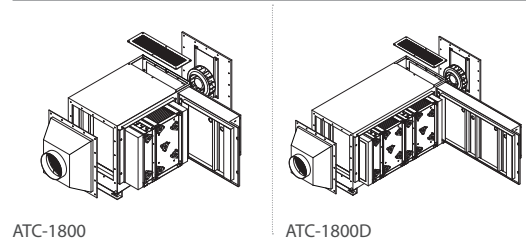
ATC-1200D



Small-Sized Electrostatic Precipitator ATC-1800 (20~40m³/min)



Layout



ATC-1800

ATC-1800D



SPECIFICATION

Model No.	Unit Type	Dimension			Unit Q'ty	Air Capacity(max)	Power Input	Volt /Phase
		B	W	H				
ATC-1800	Single	650	765	650	1	30 m ³ /min x 80mmAq	0.25KW	220/1Ø
ATC-1800D	Double	650	1160	650	2	30 m ³ /min x 80mmAq	0.25KW	

- ※ Separate inquiry is required on Size & Type because HOPPER Part is optional.
- ※ ATC-Series has integral-type Fan & Motor. If requested, they can be removed.

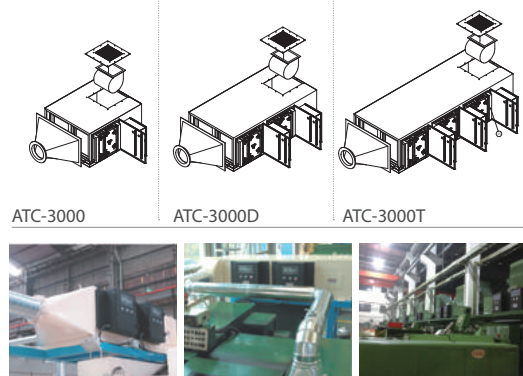
Installation Figures



Medium-Sized Electrostatic Precipitator ATC-3000 (40~60m³/min)



Layout



SPECIFICATION

Model No.	Unit Type	Dimension			Unit Q'ty	Air Capacity(max)	Power Input	Volt /Phase
		B	W	H				
ATC-3000	Single	1200	1200	650	2	50m ³ /min x 35mmAq	0.75KW	220, 380/3Ø
ATC-3000D	Double	1200	1800	650	4			
ATC-3000T	Triple	1200	2500	650	6			

- ※ Separate inquiry is required on Size & Type because HOPPER Part is optional.
- ※ ATC-Series has integral-type Fan & Motor. If requested, they can be removed.

Installation Figures



ATC-3000D



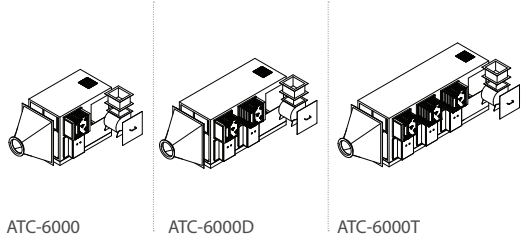
ATC-3000D



Medium-Sized Electrostatic Precipitator ATC-6000 (80~120m³/min)



Layout



SPECIFICATION

Model No.	Unit Type	Dimension			Unit Q'ty	Air Capacity(max)	Power Input	Volt /Phase
		B	W	H				
ATC-6000	Single	1100	1400	1250	4	100 m ³ /min x 38mmAq	1.5KW	220, 380/3Ø
ATC-6000D	Double	1100	2000	1250	8			
ATC-6000T	Triple	1100	2700	1250	12			

- ※ Separate inquiry is required on Size & Type because HOPPER Part is optional.
- ※ ATC-Series has integral-type Fan & Motor. If requested, they can be removed.

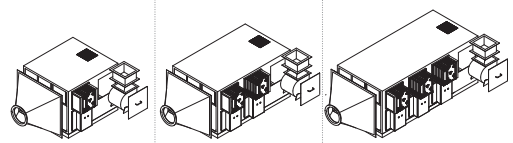
Installation Figures



Medium-Sized Electrostatic Precipitator ATC-8000 (120~170m³/min)



Layout



ATC-8000

ATC-8000D

ATC-8000T



SPECIFICATION

Model No.	Unit Type	Dimension			Unit Q'ty	Air Capacity(max)	Power Input	Volt /Phase
		B	W	H				
ATC-8000	Single	1600	1400	1250	6	150m ³ /min x 60mmAq	2.2KW	220, 380/3Ø
ATC-8000D	Double	1600	2000	1250	12			
ATC-8000T	Triple	1600	2700	1250	18			

- ※ Separate inquiry is required on Size & Type because HOPPER Part is optional.
- ※ ATC-Series has integral-type Fan & Motor. If requested, they can be removed.

Installation Figures



ATC-6000T



ATC-8000D



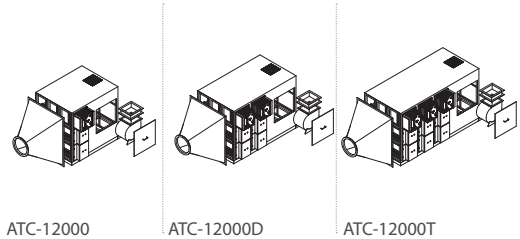
ATC-8000T



Medium-Sized Electrostatic Precipitator ATC-12000 (170~200m³/min)



Layout



ATC-12000

ATC-12000D

ATC-12000T



SPECIFICATION

Model No.	Unit Type	Dimension			Unit Q'ty	Air Capacity(max)	Power Input	Volt /Phase
		B	W	H				
ATC-12000	Single	1600	1400	1850	9	200 m ³ /min x 75mmAq	3.7KW	220, 380/3Ø
ATC-12000D	Double	1600	2200	1850	18			
ATC-12000T	Triple	1600	2900	1850	27			

- ※ Separate inquiry is required on Size & Type because HOPPER Part is optional.
- ※ ATC-Series has integral-type Fan & Motor. If requested, they can be removed.

Installation Figures



ATC-8000T



ATC-12000D



ATC-12000D

Figures for Installing Large-Sized Precipitator



ATC-18000D



ATC-18000T



ATC-18000T



ATC-21000T



ATC-24000T



ATC-30000D



ATC-36000D



ATC-36000D



ATC-36000T



Figures for Installing Large-Sized Precipitator



ATC-42000T



ATC-48000D



ATC-48000D



ATC-48000T



ATC-66000D



ATC-72000D



ATC-72000D

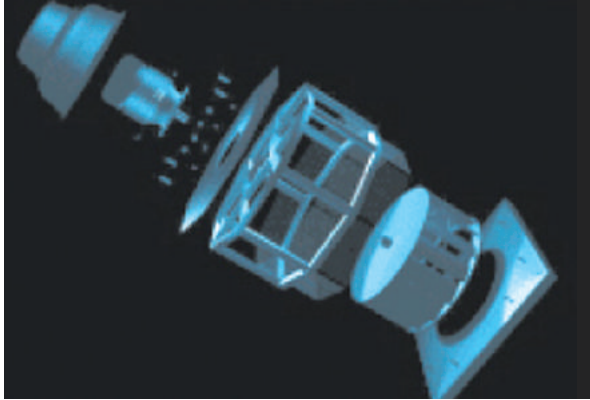


ATC-78000T

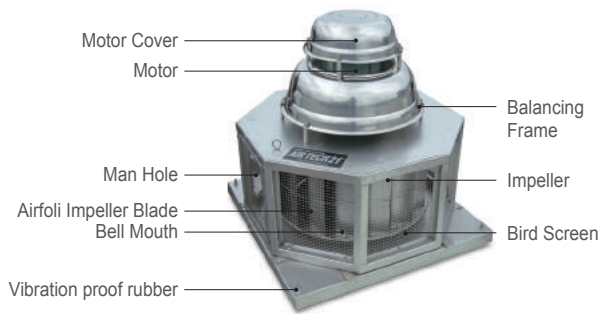


ATC-96000T

Roof Fan with Ultra-Large Capacity and Low Noise



VENTILATOR



This product was made to create the fresh operational environment combining the innovative idea with design and production know-how for several years, so we are confident that it plays an essential role to improve the operational environment of your company.

As installed on walls or the roof of your factories and warehouses, it can quickly release polluted indoor air due to heat, humidity and odor with strong power. Also, they have advantages and characteristics as follows.

Characteristic
01

Low-noise operation is realized which is an urgent problem of high efficiency and power ventilation by developing and selecting SIROCCO-TYPE light weight Impeller producing method.

Characteristic
02

Strong CHANNEL structure and ultra-light weight design minimizes the load on a building enabling the installation of VENTILATOR with high-volume wind, and it can be maintained by minimum operators for a short-time with its simple structure.

Characteristic
03

It is installed on the roof, so it needs silent operation, and maintenance is difficult. Therefore, it has special balancing, vibration proof and condensation measures, and materials of all the parts are basically stainless steel.

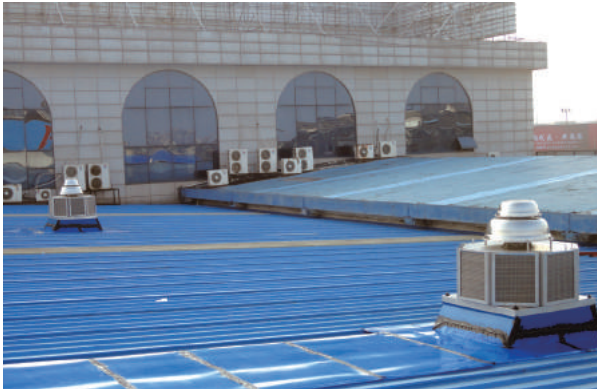
Specification

Specification	A		B		
	RV-750		RV-830		
Model name					
Motor classification	6-pole motor	8-pole motor	6-pole motor	8-pole motor	
Capacity(m ³ /min)	500	370	600	450	
Speed(rpm)	1150	850	1150	850	
Motor	kW	3.7	2.2	7.5	
	Voltage	220V/380V/440V	220V/380V/440V	220V/380V/440V	220V/380V/440V
	Ampere	16.1/9.3/8.1	12.5/7.2/15.2	30.3/17.5/15.2	19.6/11.3/9.8
Weight(kg)	130	130	130	150	
Noise(dB)	78	78	78	72	
Material	SUS 304	SUS 304	SUS 304	SUS 304	

※ Option : Silencer, VANE CONTROL DAMPER due to gravity, screen, IMPELLER clean device



Figures for installed roof fans



KIA Motors (Factory in China)



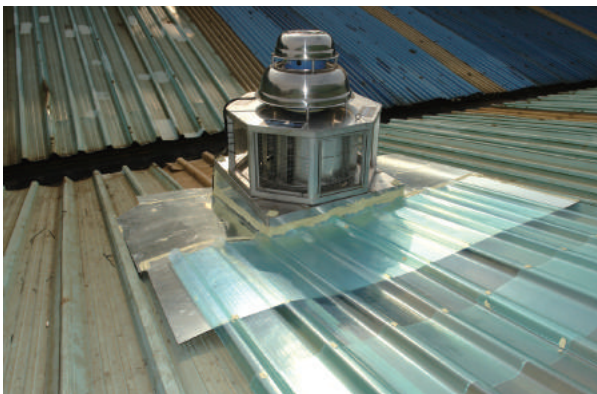
Neo Auto (Yesan)



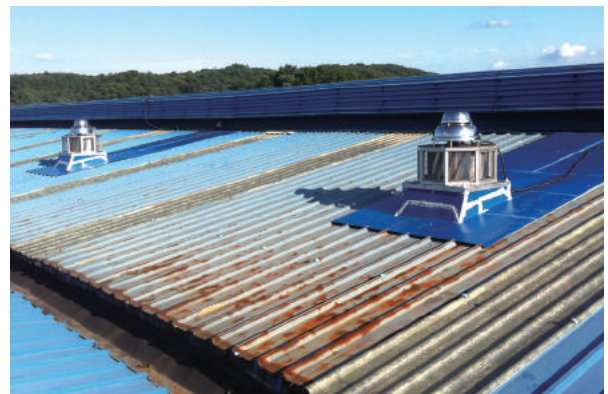
Dongwon F&B



Doosan Mecatec



Volvo Construction Equipment

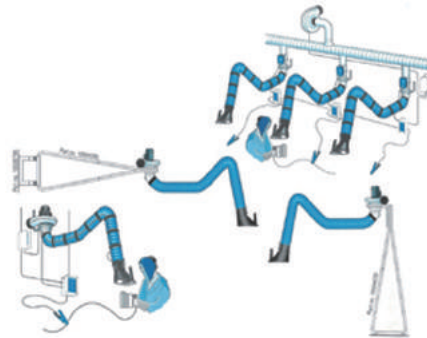


Sunil Dyfas

SWING-ARM



Layout



SWING-ARM dedicated to local ventilation

SWING-ARM is the device to intake and forcibly exhaust harmful gases to human body occurring in relatively small range of operations such as welding line. It protects the health of operators and makes the fresh operational environment.

Characteristic
01

Minimized installation area, quick installation

- It does not need a separate space for the installation, so it has excellent space utilization because it is not interfered during operation.
- It can approach closely to the operation area, so it can handle gas immediately when occurring.

Characteristic
02

Wide range of application due to free alteration.

- It is assembled with several joints, so it can approach to the area an operator wants in spite of the wide range of the operation.
- It can treat pollutants even in the wide operation space.
- The length of SWING-ARM can be extended from 2m to over 5m, so it can be widely used in any operational environment.

Installation Figures





Figures on Installed Welding Fume Exhausting Device



Sungwoo HITECH (China)



Hyundai Rotem



Hyundai Rotem (Car body factory)



Hyundai Rotem (Truck factory)



Volvo Construction Equipment



Volvo Construction Equipment



KIA Motors (Yancheng)



KIA Motors (Yancheng)

Portable Bag Filter

Widely Used Small-Sized Precipitator(BFT SERIES) : BAG FILTER TYPE



D : INLET Ø E, F : INLET Center (Based on the lower part)

- Characteristic 01** **24-Hour Operation**
Precipitator to perfectly eliminate even particles by spreading compressed air inside Cartridge filter automatically
- Characteristic 02** **One Touch Filter Exchange**
Simple attachment and detachment of Filter without butterfly nuts
- Characteristic 03** **Ultra Powerful Turbo Fan**
Wonderful wind volume and wind pressure and realization of high efficiency and low noise due to dedicated design
- Characteristic 04** **Recognition of dust accumulation situation of the filter at a glance**
Display dust accumulation with analogue and digital differential pressure gauge and alarm filter exchange
- Characteristic 05** **Easy recovery of dust and materials**
Dust Box built in the lower part of the main body is simply attached and detached with One-Touch type, so dust and material recovery are available.

Standard Dimension

Type	Wind pressure (m ³ /min)	Static pressure (mmAQ)	Motor (kW)	Filter		Dimension(mm)							Power
				Q TY	MAT	A	B	C	D	E	F	G	
BFT-2000	25	230	1.5	6	Polyester	650	650	1,765	150	225	645	140	AC220V / 380V / 440V Three phase
BFT-3000	40	230	2.2	9		770	770	1,785	200	225	605	140	
BFT-5000	60	230	3.7	12		900	900	1,850	250	300	550	140	
BFT-7500	80	250	5.5	18		1,300	1,300	1,916	300	270	491	140	
BFT-10000	100	250	7.5	24		1,700	900	1,971	350	270	490	140	
BFT-15000	130	250	5.5 × 2	24		1,700	900	1,971	400	270	490	140	

Caution

- Please earth to prevent electric shock.
- Please inquire on dust with the danger of explosion.
- BFT is a dry dust precipitator, so please be careful about inhaling moist, fume, flare, etc.
- Please install Pre-Duster when the operation in which flames occur is carried out.
- Standardized type is for indoor use.



ATM-1200 / ATM-1800



Characteristic
01

Act as a multi-used precipitator

It can be applied for various usages as it can collect different kinds of dusts, wet process, dry process, fume, gold and silver works, etc.

Characteristic
02

Fundamental block electric leakage, the cause of the precipitator motor failure

It operates the motor stably by releasing oil and moist inhaled through the intake into the side section not passing the motor part.

Characteristic
03

Practicality

It can be easily assembled because internal and external covers are disassembled by just opening one-touch lever when cleaning.

Characteristic
04

Economical

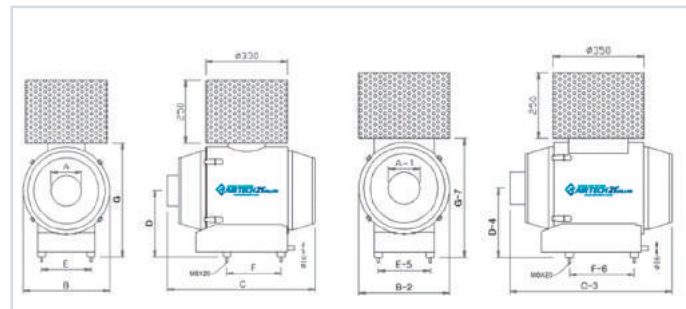
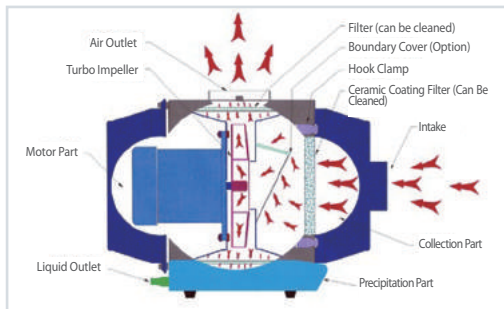
Durability of the product has been increased by mechanical design, and with the practical structure, it has a competitive price compared to the capacity of other products

Characteristic
05

Damage to turbo-type impeller is prevented by a detachable chip

Characteristic
06

It can be cleaned with ceramic coated filter for a long time.



Specification

Type	Power	Consumption (Hp)	The number of rotation (rpm)	Static pressure (mmAQ)	Wind volume (m ³ /min)	Noise level (dB)	Weight (kg)	Diameter of suction (mm)	Collection efficiency (%)
ATM-1200	220V / 380V 60Hz (Three phase, Single phase)	1Hp	3,420	200	12	70±3	30	123	More than 97% available when Cartridge filter is embedded (※ errors can occur according to selected filter)
ATM-1800		1.5Hp	3,420	200	19	75±3	33	123	

※ Customized large-capacity products other than existing model

Dimension

Type	Dimension(mm)					
	A	B	C	D	E	F
ATM-1200	123mm	350mm	570mm	410mm	200mm	200mm
ATM-1800	123mm	350mm	600mm	415mm	200mm	250mm

SMOKING TABLE

Operation Principle of Smoking Table

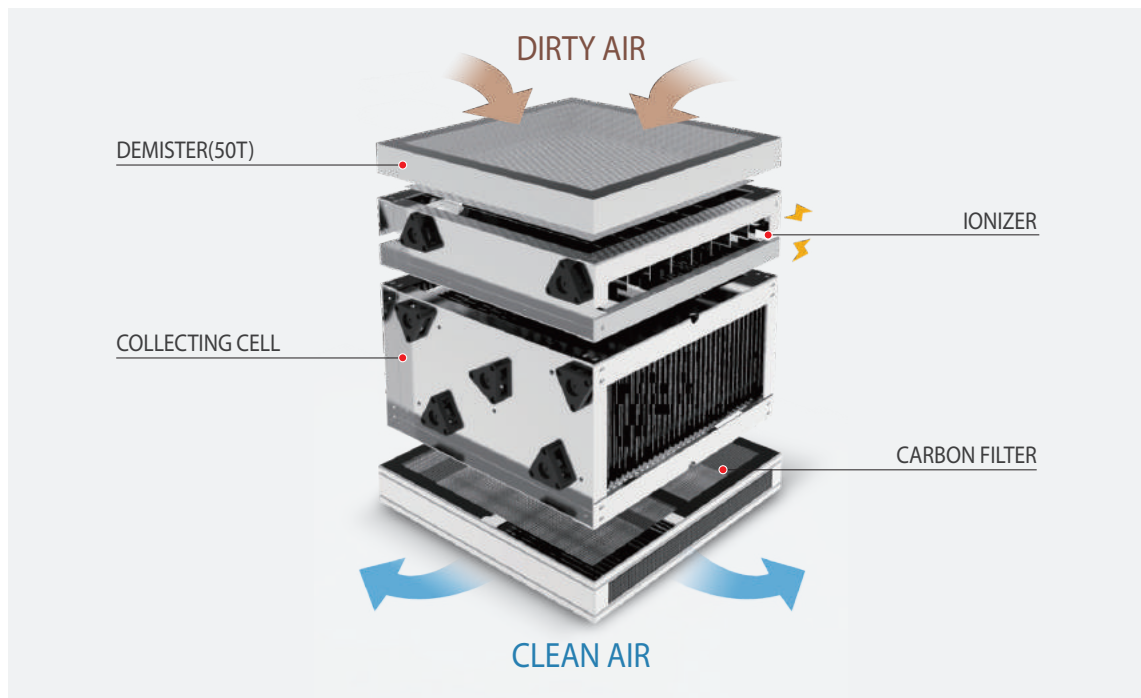
Based on AIRTECH21's own the technology, particles size less than 0.01μ can be purified effectively.

If polluted indoor air is inhaled into CLEAN AIR SYSTEM smoking table, hazardous air is collected to release fresh air through double step charging type electrostatic precipitation method.

AIRTECH21's own Technology

AIRTECH21 can purify polluted indoor air based on its most advanced technology to produce ATC SERIES by $10\sim 5000\text{m}^3/\text{min}$ among the industry.

Operation Principle of Smoking Table





Smoking Table



ATS-20



ATS-40



ATS-80

Installation Figures



SPAER PART with Model AT SERIES Electronic



IONIZER (Discharging CELL)

PART NO : AT-I-ST01

There is no concern on breaking of wire because it is SPIKED TYPE not existing WIRE TYPE, and various methods are improved through theory, experiments and technical data to enhance precipitation efficiency. Also, it is designed without any concern on corrosion. In addition, it can be used semi-permanently when maintained appropriately.

• Registration of utility model no. 20-2001-0020218



COLLECTING CELL (Precipitation Part)

PART NO : AT-C-ST01

It is the part where ionized pollutants are adsorbed, so length and cross-section of precipitation plate, intervals between precipitation plates, material location of insulators, etc. are optimally designed for various pollutants.

• Patent no. 10-0722863

Usage	Interval	Thickness	P/N
DUST	0.8mm	0.6T	52002-002-1
MIST	0.6mm	0.6T	52002-002-2



POWER PACK (high voltage part)

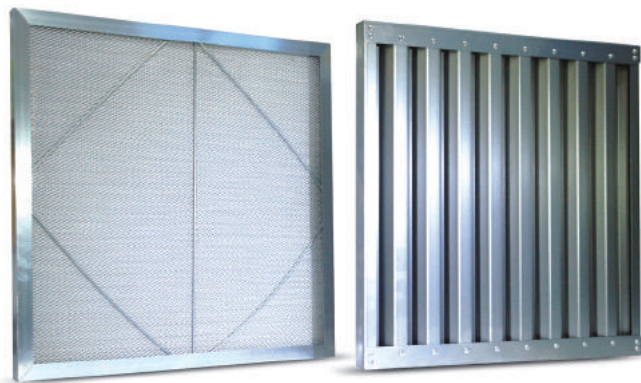
PART NO : AT-PP-ST01

POWER PACK contains the function to change 220V alternating current into DC high-voltage (12KVDC) necessary for IONIZER and precipitation part. For the safety, electric current in a high voltage section is limited to 2mA and maximum to 5mA when substances with low ignition point are inhaled.

• Registration of utility model no. 20-2002-0018927



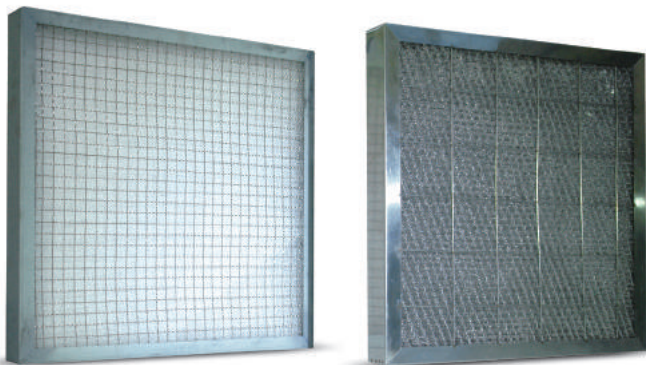
SPAER PART with Model AT SERIES Electronic



FOOD FILTER PART NO : AT-F-ST01 & IMPINGER PART NO : AT-IM-ST01

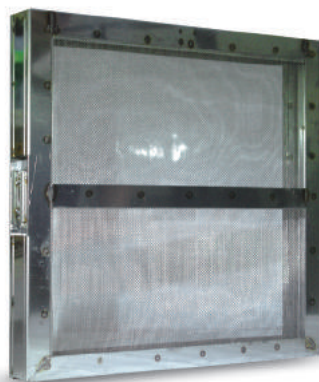
FOOD FILTER – It is optional, and it is installed in the front to precipitate large-volume pollutants.

IMPINGER – It is optional, and it is installed in the front to spread wind evenly.



DEMISTER PART NO : AT-D-ST01 (P/P & SUS) PART NO : AT-D-ST02

DEMISTER is installed in the front of an electrostatic precipitator (IONIZER) acting as PRE-FILTER, and it precipitates relatively large-volume pollutants.



ACTIVE CARBON FILTER PART NO : AT-AC-ST01

A/C FILTER is optional and the concept of AFTER-FILTER. It has an excellent effect to remove odor after precipitation, and it is made of ALL SUS materials to improve practicality regarding BOX form and durability.



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