



APC
AIR PRO CONTROL

Industrial
Ventilation



For a Cleaner, Safer and
Eco Friendly **Working Environments**



airprocontrol.com



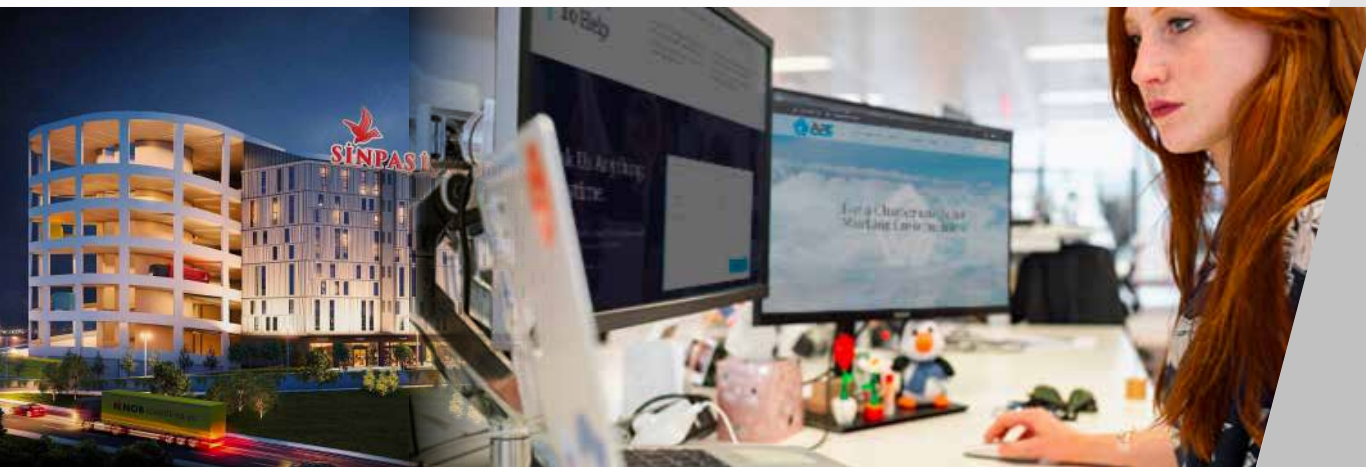
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APC – Air Pro Control has been established for supplying Professional Air Controlling Devices and Services especially for industrial environments. **Air Pollution Control** and supplying clean & safe working areas while keeping production process air at controlled leveled always. These main devices are dust collectors, vacuum collectors, wet filters, gas scrubbers, silica gel dehumidifiers, special design industrial air handling units, process dehumidifiers, etc.

Products that are built-in confidence more than 20 years of experience and references together with production under **ISO9001**, **ATEX** regulations & **NFPA** legislations.



Mission

Our Mission is to supply our engineering expertise internationally to the market with our global partners.

Vision

Our Vision is to supply many Cleaner, Safer, and Eco-Friendly Working Environments for industrial facilities.

QUALITY POLICY

- Manufacture ecofriendly products with high tech manufacturing process and test these products according to the international standards.
- Meet the customer expectations with new products that are produced according RD works.
- Be an expert at national and international markets.
- Review quality management system make continuous improvement and meet the requirements.
- Encourage participation to all parties (Organization, customer, supplier, personnel) for the defined targets, support with trainings and increase the satisfaction.



ADC DUST COLLECTORS

Industrial Dust Collectors are generally used for cleaner and safer working environments. **ADC dust collectors** also sustain energy savings with highly efficient filtration which also leads to production efficiency increases, product recoveries and air pollution control.

ADC ATEX Dust Collectors have cartridge filter types with Pulse Jet automatic cleaning system. Cartridge technology that will supply clean air and long life, as well as saving space will be smaller than the other dust collectors. Together with the improved performance, setup, and maintenance easiness properties, ADC cleans the dust and particles at the workspace. The unit is designed according to the **EN** and **NFPA** standards.

Body

The Body is constructed from a minimum 5 mm thick HRP St37 steel sheet (SS versions are available), integrated with bolts and nuts. The grill structure of the dirty air inlet will direct the large particles to the hopper and the filters will be prevented to face large particles.



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PLAY**



**EXPLOSION
RESISTANCE**



**ENERGY
SAVER**



ADC has different options as tailored-made solutions.

- Dust Bin Mechanism
- Sliding Gate
- Double Sliding Valve
- BIBO - Bag In Bag Out
- Continuous Liner Discharge
- IIoT - Industrial Internet of Things

Dust Bin Mechanism

Dust bins have a mechanism that will have easy maintenance. Bag discharge together with the dust bin discharging makes it easier.

Sliding Valve

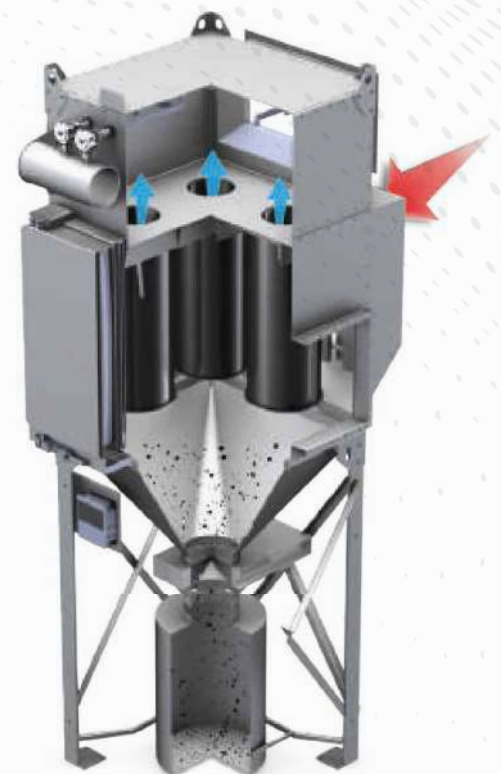
A sliding valve helps to cut off the connection between the dust bin and the discharge connection of the bunker.

Double Sliding Valve

A double Sliding valve helps to cut off the connection between the dust bin or discharge connection of the bunker while supplying a continuous discharging to the Big Bag.

BIBO Bag In Bag Out - Safe Change Filter Housing

Together with the BIBO (Bag in Bag Out) bag safe change personnel will not be exposed to any dust while filter change and the dust disposal. Bag connections are made at the service doors where the filters are changed and dust bin connections for the dust disposals. The service door opening mechanism is designed to decrease the service lost time while opening and closing as low as below 30 seconds without using any tool, bolts, or nuts.



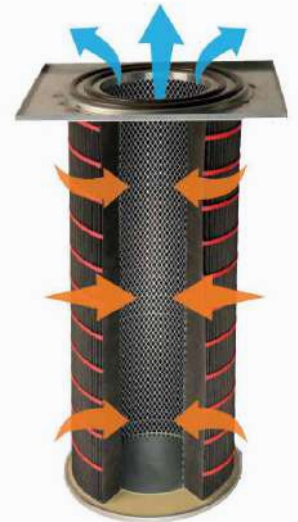
ADC DUST COLLECTORS

Continuous Liner Discharge

It is a self-folded bag structure that reduces charging times by providing continuous change. Position sensor information, automation information, sealed bucket system with ATEX pistons.

ACF Cartridge Filters

ACF Cartridge filters are the heart of the ADC. Electroconductive cartridge filters can work continuously at 80°C. All filter media have a minimum efficiency of F9 EN779 2012 / MERV 15. Surface load causes acceptable dust cake over the filter surface which increases the filtration efficiency. These kinds of filters have 10 times higher efficiency than causal filters. Surface loading prevents the blockage of the filter and makes the removal of the dust cake easier. In order to comply with the protection in an environment with a high risk of dust explosions, a filter with conductive media which is flame retardant (F1 acc. to DIN 53438) provides superior filtration performance. Filters not only collect dust particles but also work as an active component of a protection system against dust explosion. Filter helps for preventing spark injection in the dust collector.



Cartridge Filter Settlement

Cartridge filters are at vertical position that using gravity for pulling down the dusts to the bunker, will make the cleaning easier. Cartridge filters will be assembled easily with a simple tightening mechanism. Filter changes will be made easily without using any additional tool or entering inside to the housing. Filter pleats will have an open type of shape that it will not lead to a self-blockage.

Compressed Air Specification

| | |
|-----------------|--|
| Max | 7.5 Bar |
| Maximum Usage | Minimum 6,2 Bar @ 54 m ³ /h According to ISO8573-1:2010 |
| Max Oil Content | 3 mg/m ³ |

Automatic Filter Cleaning

Cartridge filters are automatic cleaned with the jet pulse backflow pressurized air. Cleaning system will arrange pulse jet timings and the intervals together with the automatic controlled pressurized air valves. This system works according to the differential pressure of the filter that will supply energy saving. This system includes following elements; pressurized air heads, cleaning pipes with the nozzles, diaphragms, and ATEX approved solenoids. Diaphragms will be fabrication assembled to the solenoids. HMI will monitor the filter differential pressure continuously and together with the smart control system, cleaning will be arranged automatically according to the differential pressure of the filters and the usage. Cleaning system elements have ATEX approval.

Explosion Vent

The explosion vent is a domed disk manufactured from 304SS. The venting area will be calculated for a Kst value according to dust value or below Kst 299 bar*m/sec. The vent will be suitable for ambient temperature conditions. The vent will be designed and approved according to ATEX regulations at EN 14491:2010 and/or NFPA 68.

pressure continuously and together with the smart control system, cleaning will be arranged automatically according to the differential pressure of the filters and the usage. Cleaning system elements have ATEX approval.

Dust Bin Level Switch

ADC level switches for dust accumulation at the bunker area will give an alert but the dust collection process will continue. The level switch will have a minimum ATEX certification.

Door Switch

ADC door switches help that the service door is closed tight enough for the operation.

Automatic Dust Collector System Control

ADC is controlled with HMI that whole system relates to Field Terminal boxes and will communicate with Profinet network based Cat6 cables. In this way, Exhaust - Fresh Airflow rates will be adjusted automatically according to instant



ADC DUST COLLECTORS

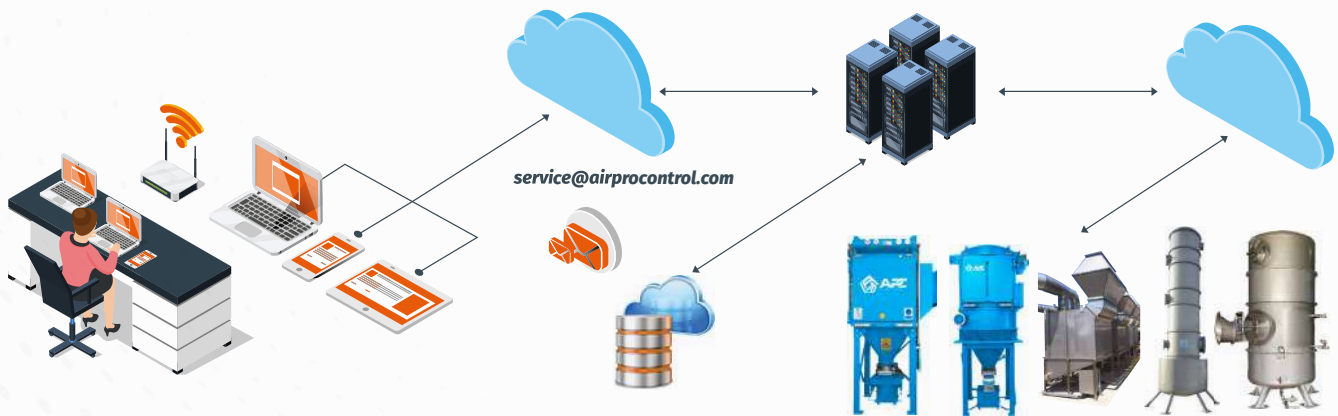
usage. Dust Collection Unit Terminal Box is ATEX certified since it is exposed to dust or gas during maintenance.

Terminal Box

ADC has Profinet communication with the terminal boxes and provides instant data monitoring and control.

IIOT

Regarding the predictive maintenance application, the whole system can communicate with IIoT as integrated. Data recording and system analysis are always ready with the APCIoT continuous cloud service.



Applications

- Pharmaceutical
- Chemical
- Food & Agricultural
- Paper Scrap, Trim Transport
- Laser / Plasma Cutting & Welding
- Rubber
- Composite / Fiberglass
- Mining
- Powder Painting
- Wood
- Textile



AVC VACUUM COLLECTORS

AVC Industrial Vacuum Collectors are for high vacuum pressures that are used with Pulse Jet automatic cleaning system. Cartridge technology that will supply clean air and long life, as well housing space will be smaller than the other dust collectors. Together with the improved performance, setup, and maintenance easiness properties, these systems are generally preferred for vacuum cleaning, long ducting, pneumatic conveying, etc. The unit is designed according to the EN and NFPA standards

Body

The Body is constructed from a minimum 5 mm thick HRP St37 steel sheet (SS versions are available), integrated with bolts and nuts. Tangential cyclone inlet ensures that the coarse dust is directed to the bunker and the filters will be prevented to face large particles.

AVC has different options as tailored-made solutions.

- Dust Bin Mechanism
- Sliding Gate
- Double Sliding Gate
- BIBO Bag In Bag Out
- Continuous Liner Discharge
- IIoT - Industrial Internet of Things

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Sliding Valve

A sliding valve helps to cut off the connection between the dust bin and the discharge connection of the bunker.

Double Sliding Valve

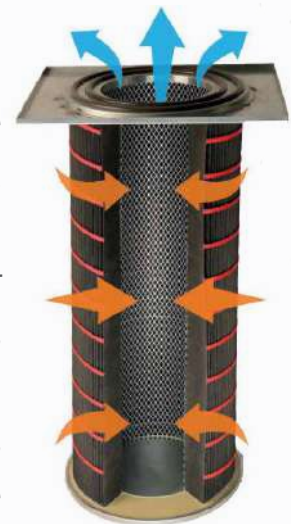
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Compressed Air Specification

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| Max | 7.5 Bar |
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Dust Bin Level Switch

Level switches for dust accumulation at the bunker area will give an alert but the dust collection process will continue. The level switch will have a minimum ATEX certification.



Door Switch

Door switches help that the service door is closed tight enough for the operation.

Automatic Dust Collector System Control

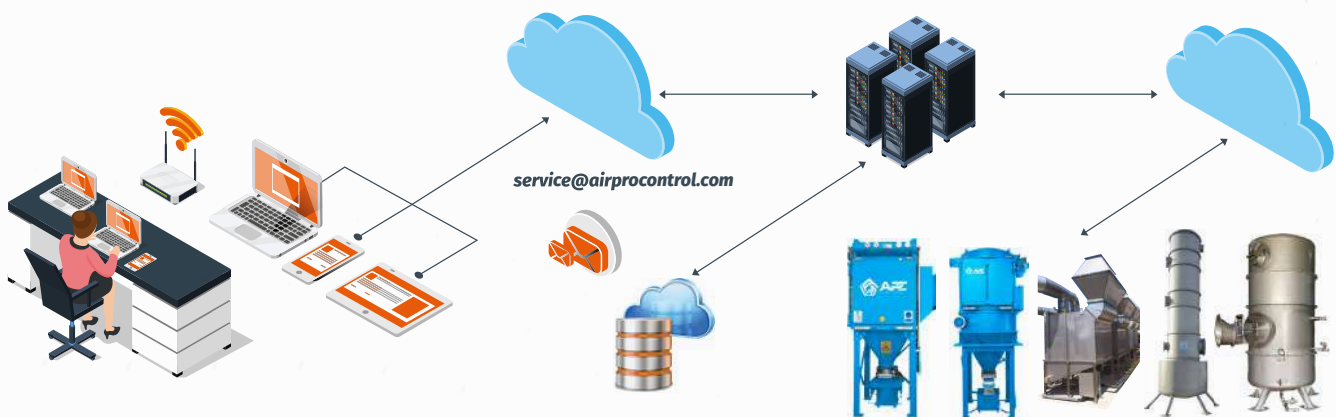
ADC is controlled with HMI that whole system relates to Field Terminal boxes and will communicate with Profinet network based Cat6 cables. In this way, Exhaust - Fresh Airflow rates will be adjusted automatically according to instant usage. Dust Collection Unit Terminal Box is ATEX certified since it is exposed to dust or gas during maintenance.

Terminal Box

ADC has Profinet communication with the terminal boxes and provides instant data monitoring and control.

IIOT

Regarding the predictive maintenance application, the whole system can communicate with IIoT as integrated. Data recording and system analysis are always ready with the APCIoT continuous cloud service.

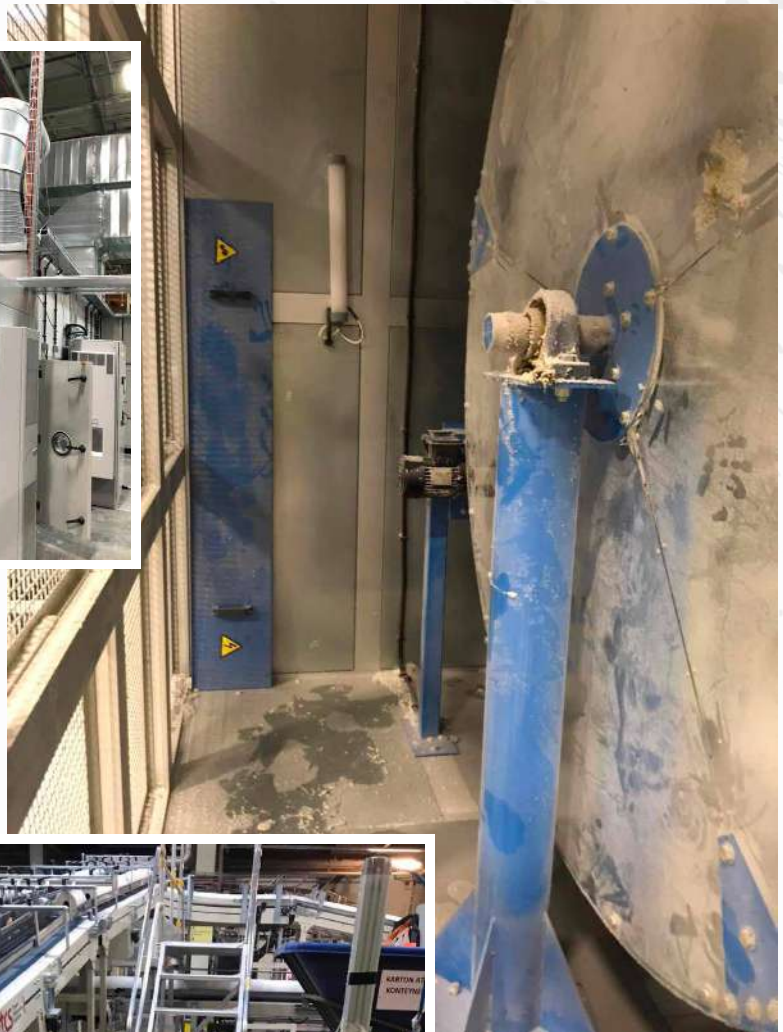


Applications

- Pharmaceutical
- Chemical
- Food & Agricultural
- Paper Scrap, Trim Transport
- Laser / Plasma Cutting & Welding
- Rubber
- Composite / Fiberglass
- Mining
- Powder Painting
- Wood
- Textile

ROTARY AIR FILTERS / DRUM FILTERS

The Rotary Air Filters or Drum Filters are designed for extraction of high air volumes to filter fine dust filtration before exhaust or recirculation. Especially used for a high volume of factories together with a high concentration of dust and fibers like in textile (spinning, weaving), tissue paper, baby, and adult diapers manufacturing industries ventilation systems.



- Long service life
- Differential pressure control
- Shorter maintenance time



WET COLLECTOR

The wet collector is designed according to the impact of exhaust air and washing principles. It consists of a washing section with a speed and length to include sufficient contact time and drop holding sections by making use of the feature of impact by increasing the airspeed effectively.

The device made of **AISI 304** quality sheet metal, has a drain, overflow, surveillance, electric heater with thermostat, and maintenance covers. Dust particles for the design need are separated from the airflow by increasing their weight and dimensions and settled towards the chamber (bunker).

Precipitated pollutants are discharged to the treatment system at regular intervals and the cleaning fluid is renewed.



Dust Collection System Automatic Control System

Dust Collection system will be controlled by an MCP & ACP Main Panel. The whole system is connected with Field Terminal boxes and will communicate with Profinet network based Cat6 cables.

In this way, Exhaust - Fresh Air flow rates will be adjusted automatically according to instant usage. Dust Collection Unit Terminal Box is **ATEX** certified since it is exposed to dust or gas during maintenance.

MCP - Motor Control Panel

The Motor Control Panel is designed to control the dust collecting fan connected to the dust collecting unit with the driver.

ACP - Automation Control Panel

The automation system controls the Dust Collection System by operating the dust collection unit and the air handling unit in conjunction. All field monitoring, temperature, damper open / close, filter monitoring are designed through this system. The automation system is a HMI Controlled system and PLC-based, and has the feature of data mining with IIOT database for the information monitoring system and should be able to provide predictive maintenance.

Gas Scrubber Systems are the most common exhaust treatment systems used for the removal of process waste gases, vapors, combustion gases, and other pollutants that are generated during the activities of various industrial productions. For the pharmaceutical, chemical, metallurgy, iron, and steel, food, textile, paint, cosmetic, chemical storage, artificial leather, precious metals (gold, silver), foundry, thermal processing, surface finishing facilities we can supply tailor-made solutions which best-fit design and production together with our exploration and measurements.

Body

The Body is constructed from a minimum of 2 mm thick SS 304 stainless steel.

Level Switch

Level switches with high accuracy together with minimum ATEX certification.

Door Switch

Door switches help that the service door is closed tight enough for the operation.

Automatic Dust Collector System Control

AGS is controlled with HMI that whole system relates to Field Terminal boxes and will communicate with Profinet network-based Cat6 cables. In this way, Exhaust Airflow rates will be adjusted automatically according to instant usage.



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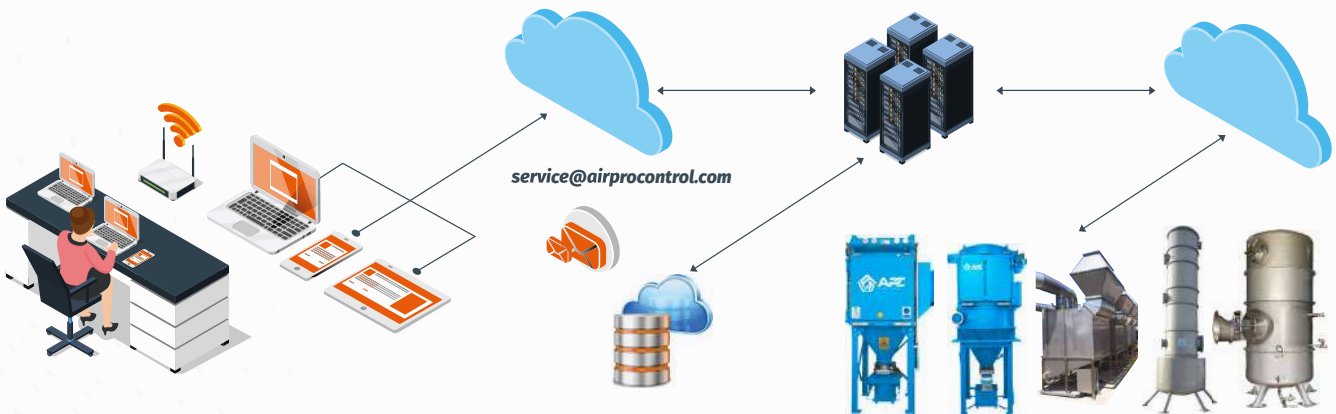
GAS SCRUBBERS

Terminal Box

AGS has Profinet communication with the terminal boxes and provides instant data monitoring and control.

IIoT - Industrial Internet of Things

Regarding the predictive maintenance application, the whole system can communicate with IIoT as integrated. Data recording and system analysis are always ready with the APCIoT continuous cloud service.

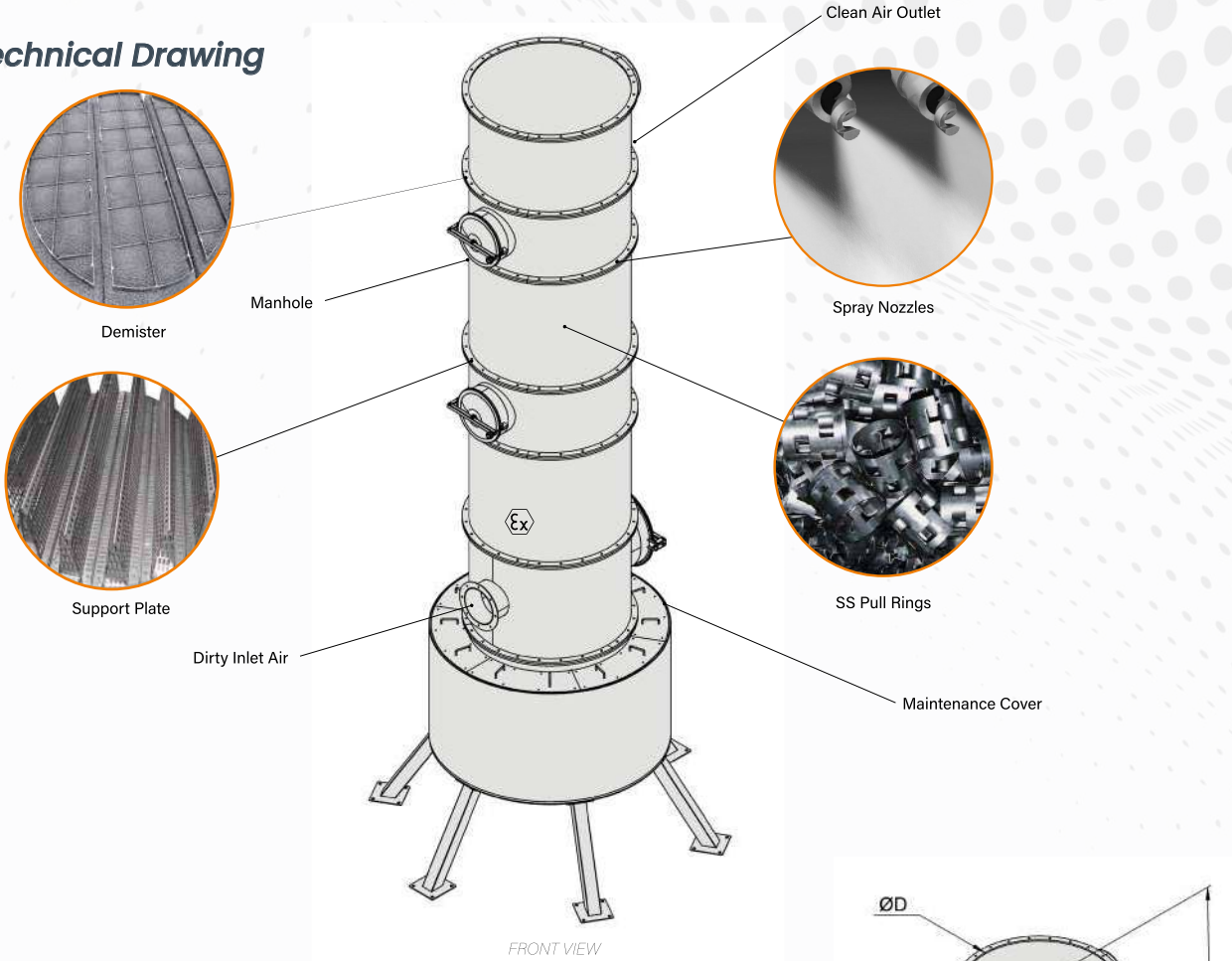


Applications

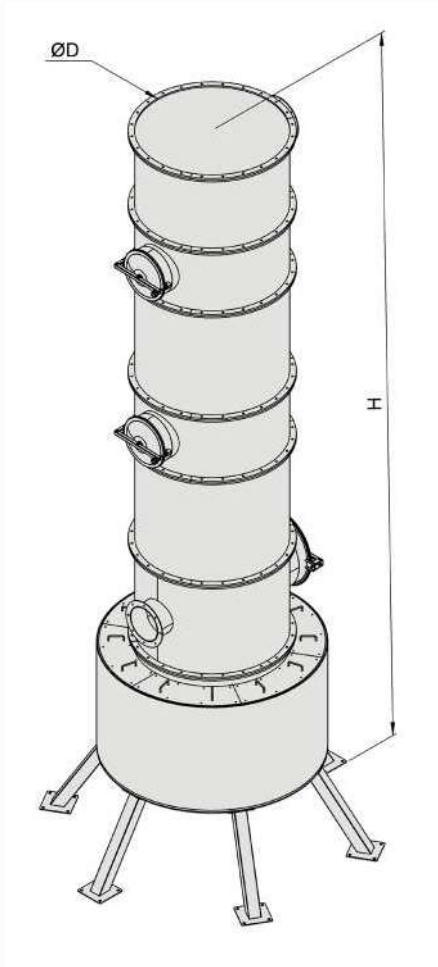
- Pharmaceutical
- Chemical
- Food & Agricultural
- Paper Scrap, Trim Transport
- Laser / Plasma Cutting & Welding
- Rubber
- Composite / Fiberglass
- Mining
- Powder Painting
- Wood
- Textile

| Unit | Diameter | Nominal Airflow |
|-----------|----------|--------------------------|
| AGS-1-SS | 500 mm | 1.000 m ³ /h |
| AGS-2-SS | 650 mm | 2.000 m ³ /h |
| AGS-3-SS | 800 mm | 3.000 m ³ /h |
| AGS-4-SS | 1.000 mm | 4.000 m ³ /h |
| AGS-5-SS | 1.100 mm | 5.000 m ³ /h |
| AGS-6-SS | 1.200 mm | 6.000 m ³ /h |
| AGS-7-SS | 1.200 mm | 7.000 m ³ /h |
| AGS-8-SS | 1.250 mm | 8.000 m ³ /h |
| AGS-9-SS | 1.300 mm | 9.000 m ³ /h |
| AGS-10-SS | 1.350 mm | 10.000 m ³ /h |
| AGS-11-SS | 1.400 mm | 11.000 m ³ /h |
| AGS-12-SS | 1.450 mm | 12.000 m ³ /h |
| AGS-13-SS | 1.500 mm | 13.000 m ³ /h |
| AGS-14-SS | 1.550 mm | 14.000 m ³ /h |
| AGS-15-SS | 1.600 mm | 15.000 m ³ /h |

AGS Technical Drawing



AGS Model Reference



| AGS Types | | AGS-1 | AGS-2 | AGS-4 | AGS-6 |
|-------------------------|------------|-------|-------|-------|-------|
| Nominal Airflow | m^3/h | 1000 | 2000 | 4000 | 6000 |
| | Height | 2500 | 4600 | 6500 | 7100 |
| Dimensions <i>mm</i> | Diameter Ø | 950 | 1000 | 1150 | 1200 |
| | Length | 1150 | 1200 | 1500 | 1800 |

Diameters can be change by customer's demands.



SAFE CHANGE FILTER HOUSING

Safe change filter housing helps contamination-free change of filters while keeping personal and environment safe and clean. **Bag In Bag Out System - BIBO** helps contaminated filters isolated from personal and processes. Test groove for leak testing of the gasket seal between main filter and housing helps to check the assembly of the filter.

Conductive filters and Terminal Box helps system integration of EX monitoring of the filters continuously.

ACP - Automation Control Panel

The automation system controls the Dust Collection System by operating the dust collection unit and the air handling unit in conjunction. All field monitoring, temperature, damper open / close, filter monitoring are designed through this system. The automation system is a HMI Controlled system and PLC-based, and has the feature of data mining with IIOT database for the information monitoring system and should be able to provide predictive maintenance.

TB - Terminal Box

The dust collection system has profinet communication with the dust collection unit terminal boxes and provides instant data monitoring and control.

IIOT - Industrial Internet Of Things

Regarding the predictive maintenance application, the whole system will be able to communicate with IIOT as integrated.



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OIL MIST COLLECTORS

Oil mist problems are generally formed due to machining and other processes that lead to the polluted exhaust air which contains oil mist. Oil mist filters are used to protect people, keeping clean the working environment, and increase productivity.



REGENERATIVE THERMAL OXIDIZER

In chemical, metallurgy, foundry, thermal processing, food, painting, textile, artificial leather, and wastewater treatment facilities generally produce VOC (volatile organic compounds), gas/vapor wastes, and odor problems that can be solved best and sometimes only with thermal oxidizers.



TEXTILE AIR CONDITIONING SYSTEMS

In modern textile plants with high-speed machines, it's only possible to produce and keep the quality high by having good air-conditioning systems.

Maximum productivity is obtained from the system by keeping the humidity and temperature constant at always required levels.

Components for Masonry Air Washers

Used to moisten air effectively.

Compacting Unit

The TFS compactor unit collects and accumulates waste synthetic and natural fibers properly.

Rotary Drum Filter

It is a system that continuously collects dust and fibers which are held in a special filter element (fabric) stretched on a rotating filter.

Rotary Pre Filter

It provides an economical solution for separating fibers in machine exhausts with a high fiber ratio.



AIR FILTERS

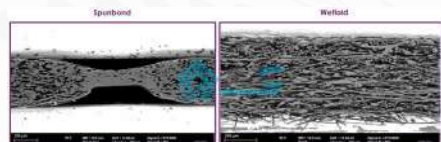
APC - DUST COLLECTOR EX CARTRIDGE FILTERS

CARTEX

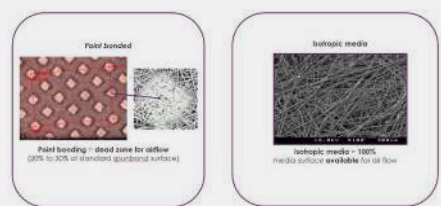
- Application:** : Air Pollution Control Cartridge Dust Collector Filters for dusts, fumes and smokes.
- Type** : Pleated Cartridge
- Media** : Cellulose Synthetic Nano
- Media Technology** : Corrugated Wetlaid
- Sealant** : Endless EPDM Double
- Seperator** : Knife Pleat Hot Melt Technology
- Frame** : Expanded Galvanized Mesh (Inside)
- Initial Pressure Drop** : 100 Pa
- Rec. Final Pressure** : 1500 Pa
- Rh max** : 95%
- T max Operating** : 75 °C
- T max** : 80 °C
- Fire Class** : Flame Retardent F1 According to ISO53438 & Self Extinguished
- Filtration Efficiency** : M Class @ EN 60335
- ATEX** : Dissipative Media in all directions TRGS 727:2016 and IEC/TS 60079-32-1. Conductive to the body of the dust collector according to the right installation. ATEX & NFPA Compliant EX Filter



| Code | EN779 | ISO16890 | Outside Diameter | Inside Diameter | Height | Height | Filtration Area | Weight |
|------------------------|-------|-----------------|------------------|-----------------|----------|----------|-------------------|--------|
| CG-CN-EX-Ø420-240x500 | Fg | ISO ePM1 80% | 420 mm | 240 mm | 500 mm | 500 mm | 15 m ² | 12 kg |
| CG-CN-EX-Ø420-240x660 | Fg | ISO ePM1 80% | 420 mm | 240 mm | 660 mm | 660 mm | 20 m ² | 14 kg |
| CG-CN-EX-Ø420-240x1000 | Fg | ISO ePM1 80% | 420 mm | 240 mm | 1.000 mm | 1.000 mm | 30 m ² | 16 kg |



Original APC ATEX ADC Dust Collector Cartridge Filters are used in a wide range of industrial applications to reduce or eliminate the emission of particles into the atmosphere, protecting people and environment.



Blend of **Cellulose/Synthetic** media with unique dissipative treatment upgraded with electrospun **Nano Fibers** on the upstream side delivers higher efficiency on fine particles, **low pressure drop** and **better dust cake release** for best and longer filtration performance. The nano layer additionally confers very good pulse-jet cleaning behavior, due to predominant surface filtration phenomena and better dust cake release.

When **antistatic** properties are required along the cartridge lifetime APC Cartridge EX gives a perfect solution with its **dissipative media** and **conductive body**. These features make it our recommended option for environments with fine pollution and explosion risk, typically in pharma, chemical processing and other industries using for example carbon black.



APC - ABSOLUTE EX FILTRATION EPA, HEPA & ULPA

CARTEX

Application: : Industrial processes like pharmaceutical, Food, Microelectronics. Dust Collection applications for secondary filtration. Safe Change Housing applications.

- Type** : Pleated Cartridge
- Media** : Microglass Fiber Nano
- Media Technology** : Corrugated Wetlaid
- Sealant** : Polyurethane, Gel, EPDM
- Seperator** : Hot Melt
- Frame** : Galvanized, Aluminium, Stainless Steel
- Rec. Final Pressure** : 600 Pa
- Rh max** : 95%
- T max Operating** : 75 °C
- T max** : 80 °C
- Fire Class** : Flame Retardent F1 According to ISO53438 & Self Extinguished
- ATEX** : Dissipative Media in all directions TRGS 727:2016 and IEC/TS 60079-32-1. Conductive to the body according to the right installation or earthing cable applied. ATEX & NFPA Compliant EX Filter



| Code | EN779 | Dimensions WxHxD | | | Airflow | Initial Pressure | Filtration Area | Weight |
|--------------------------|-------|---------------------|--------|--------|------------------------|------------------|-------------------|--------|
| VG-FC-H14-EX-305x610-292 | H14 | 305 mm | 610 mm | 292 mm | 1500 m ³ /h | 280 Pa | 16 m ² | 9 kg |
| VG-FC-H14-EX-610x610-292 | H14 | 610 mm | 610 mm | 292 mm | 3500 m ³ /h | 250 Pa | 40 m ² | 18 kg |



CARTRIDGE FILTERS FOR APC DUST COLLECTORS

CG-CN Conductive Nano Coated Carbon Cartridge filters are the heart of the ADC. Conductive cartridge filters can work continuously at 75°C. All filter media have a minimum efficiency of **F9 EN779 2012 / MERV 15**. Surface load causes acceptable dust cake over the filter surface which increases the filtration efficiency. These kinds of filters have 10 times higher efficiency than causal filters. Surface loading prevents the blockage of the filter and makes the removal of the dust cake easier. In order to comply with the protection in an environment with a high risk of dust explosions, a filter with conductive media which is flame retardant (**F1 acc. to DIN 53438**) provides superior filtration performance. Filters not only collect dust particles but also work as an active component of a protection system against dust explosion. Filter helps for preventing spark injection in the dust collector.

APC Airprocontrol provides a wide range of high-quality pleated filter elements to retrofit dust extraction systems. Round and oval filter cartridges with different flanges, diameters, and lengths. Cellulose and synthetic applications together with flame-retardant and conductive properties are standard while most of the dusts are explosives. Also, with nano-coating, we continuously keep the lower pressure losses to gain lower energy consumption together with extending the filter change-ups.



REPLACEMENT CARTRIDGE FILTERS FOR OTHER BRANDS

Conductive Nano Coated Carbon Cellulose base media gives minimum efficiency of F9 EN779 2012 / MERV 15.

High Corrugation together with cutting edge pleating method gives ideal performance for the cartridge filter technology.

Dissipative in all directions keeping antistatic properties together with whole filter life. Especially with conductive body keeps continuous discharging of the potential static electricity. Based on our market reference blend of cellulose/synthetic media with unique dissipative treatment. (TRGS 727:2016 and IEC/TS 60079-32-1)

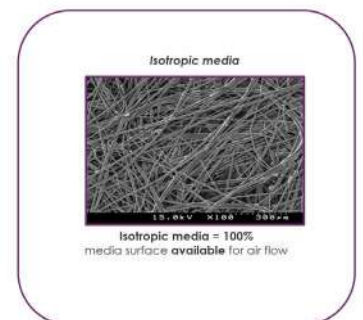
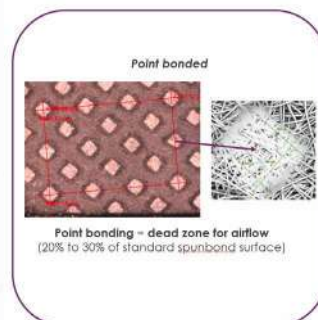
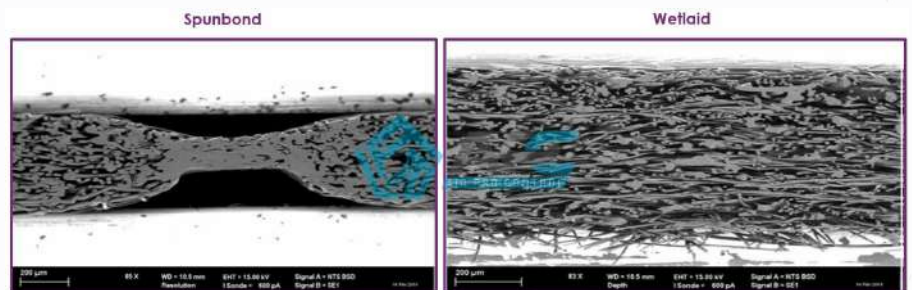
Flame Retardant (F1 acc. to DIN 53438) which is matching most demanding property for the explosive industrial requirements.

Nano Coated surface which is upgraded with electro spun nanofibers on the upstream side delivers higher efficiency on fine particles, low-pressure drop, and better dust cake release for best and longer filtration performance.

Excellent Cartridge Filter performance on rotary pleaters, durability, and pulse-jet cleaning behavior.

We have **replacement filters** for many brands.

- Camfil FARR
- Donaldson Torit
- Nederman
- American Air Filter
- Clarcor – Clark
- Robovent
- Imperial Systems
- Nordson
- Plymovent



EXPLOSION VENT PANELS

All applications from positive pressure to high vacuum applications like elevators, conveyors, silos, cyclones.

- Integral flange ready to install.
- Strong durability.
- Dustproof seal.
- Stainless Steel
- FDA Gasket
- High Temperature available
- EX, EAC, NFPA (Ex II GD, EN 14 491, EN 14 994, EN 14 797, EN 1127.1)



FLAMELESS VENTING

Flameless device connected with an internal standard panel bursting panel. It can be used with great effect indoors and outdoors and is a fast and easy solution instead of cumbersome and expensive solutions with pipe installations to the open air.

Flameless venting provides effective low-pressure resistance, eliminating the spread of flame and glowing particles. During the early stage of an explosion, the explosion vent opens. The flame burned and unburned dust enters the flame arrestor element. Flame propagation beyond the venting is prevented by energy dissipation in the filter element, reducing the burning fuel below its ignition temperature.

The dust is retained within the Venting and gases from the explosion are vented through the device into the external atmosphere around the device.



EXPLOSION PROTECTION SYSTEMS

EXPLOSION ISOLATION VALVE

An explosion isolation damper is a non-return valve designed to prevent overpressure or flame caused by a downstream explosion (dust collectors, filters, cyclones...) to propagate in the piping system.



The valve is held open by a lever arm. It can be used both at the entrance and at the exit of the filter. This allows isolating the filter from an explosion or an overpressure. In case of explosion, the valve closes and remains locked preventing the progress of the flame. The unlocking of the flap is done manually.

EXPLOSION DIVERTER

The explosion diverter is used to deflect explosions propagating through the ducts, preventing the spread of flames or overpressures in connected vessels.



This device reduces the risk of flame spread.

EXPLOSION SUPPRESSION SYSTEMS

Explosion suppression systems detect and chemically suppress up before the explosion starts at the pressure increase stage. Generally, minimal pressure formation happens so dust explosion hazards are generally minimized. Often chosen at high K_{st} value systems.



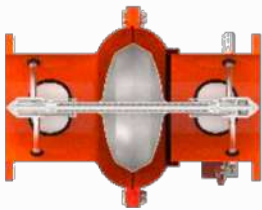
EXPLOSION ISOLATION VALVE

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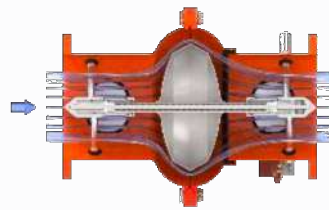


The valve is held open by a lever arm. It can be used both at the entrance and at the exit of the filter. This allows isolating the filter from an explosion or an overpressure.

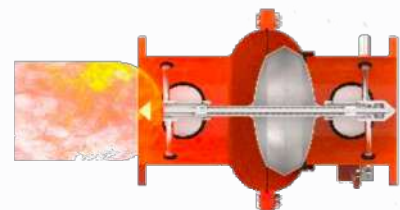
In case of explosion, the valve closes and remains locked preventing the progress of the flame. The unlocking of the flap is done manually.



When idle or rather without air flow, the Closing device is held in the middle position.



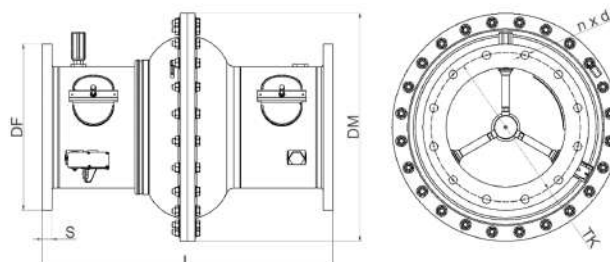
In normal operation, the medium flows around the closing device.



In case of an explosion, the pressure wave pushes the closing device against the closing device seal. The valve is locked in this closed state, preventing the spread of flames and pressure waves.

| Nominal size | DN100 | DN150 | DN200 | DN250 | DN300 | DN400 | DN500 | DN600 |
|---|--------------------------|---------|---------|---------|---------|---------|----------|----------|
| | ~ 4" | ~ 6" | ~ 8" | ~ 10" | ~ 12" | ~ 16" | ~ 20" | ~ 24" |
| Length [L] | S: 350 ± 4 D: 400 ± 4 | 500 ± 4 | 610 ± 4 | 710 ± 4 | 780 ± 4 | 940 ± 6 | 1300 ± 6 | 1420 ± 6 |
| Connection flange diameter EN 1092-1 PN10 [DF] | 220 | 285 | 340 | 395 | 445 | 565 | 670 | 780 |
| Connection flange diameter ASME B16.5 Class 150 (ANSI) [DF] | 230 | 280 | 345 | 406 | 485 | 595 | 700 | 813.5 |
| Outside diameter middle flange [DM] | 260 | 370 | 480 | 550 | 610 | 719 | 818 | 936 |
| Net weight [in kg] | 19.0 | 35.0 | 55.5 | 78.0 | 80.5 | 134.5 | 206.5 | 295.0 |
| Thickness of the connection flange [S] | 15 | 15 | 24 | 24 | 26 | 26 | 30 | 30 |

All dimensions in mm, unless otherwise indicated



Dehumidification Sorption Technology

Nowadays, sensitive humidity balance control has become a design parameter as well as the air temperature in many production processes like in clean rooms, pharmaceutical production facilities, glass lamination production, battery production facilities, defense industry, bridge and similar structures, corrosion protection, warehouses, food facilities, indoor winter sports facilities, and many similar production processes. We supply equipment for such demanded sensitive humidity-controlled industrial processes. We provide project design and tailor-made solutions in a way to analyze the dehumidification process correctly, in a capacity suitable for the requirement and with minimum energy consumption.

Dehumidification by Condensation

It is the most classic dehumidification system that has been used since the invention of the air conditioner. It is the dehumidification principle that offers an ideal solution for the temperature and humidity values demanded in standard room conditions. It is the equipment that will be the most suitable and the lowest operating cost when used by calculating correctly.

Desiccant Rotor Dehumidification

Desiccant rotor dehumidification systems are the most economical systems that should be used for demanded humidity values below room temperature and 50% RH.

At the heart of the system is a high efficiency silica gel impregnated rotor. In addition to being like heat recovery rotors in structure, it is a system that transfers moisture in functionality. They are continuously operating dehumidifiers that can reach low dew points.

The rotor is divided in to two separate sections on it. These are the process and regeneration sections. While the process air to be dried passes through the part of the rotor reserved for the process, it dries the air by transferring the moisture it contains to the rotor. To dry the rotor, which absorbs moisture, the air taken from outside and heated passes through the regeneration section of the rotor and dries the rotor. Thanks to this continuous system, desired humidity conditions are provided.





Industrial Air Handling Unit Type Dehumidification

Industrial dehumidifier system to be tailored to meet the varying needs of the process industry. We offer everything from basic desiccant dehumidification to a complete climatic control system. With total flexibility in design, these highly efficient industrial dehumidifiers are structured around the rotor to conform precisely to customers' specifications. Dehumidification is the prime objective of Sorption, and whilst pre-cooling is often required, post-cooling and post-heating can also be included. With available air flows up to 100.000 m³/h.

The smooth interior design, with no sills or pockets, and external locks on the hatches make the inside easy to wash so as to maintain good hygiene levels. Stainless steel panels are available as an optional extra for dehumidification in demanding environments. Our dehumidifiers are tested at our factory to keep the start-up time to a minimum when they are installed.





HIGH VACUUM DUCTING SYSTEMS



Industrial ducting, high vacuum pipes, couplings, sliding dampers, extraction arms, downdraft tables and other accessories specially designed for Industrial Dust, Gas, Oil Mist Collection Applications



Vacuum Pipe



Duct



Bend



Branch



Trouser



Sliding Damper



Cone



Coupling



Flap Valve

HIGH VACUUM DUCTING SYSTEMS

High Vacuum Ducting / Pipe / Tubing

High Vacuum Ducting / Pipe / Tubing is manufactured from Galvanized Steel or Stainless Steel.

Up to 200 mm "S" Straight ends are used together with couplings. Above 200 mm "L" Lipped versions are used for the flanged connection.



High Vacuum Bends

High Vacuum Bends from Galvanized Steel or Stainless Steel. Up to 200 mm "S" Straight ends are used together with couplings. Above 200 mm "L" Lipped versions are used for the flanged connection and specially arranged for 45° & 90° degrees together with 1.5D & 2D Radius designed for dust collection and pneumatic piping.



High Vacuum Reinforced Bends

Reinforced Bends for Heavy Duty applications designed for abrasive dust collection. The higher radius and outer part are covered with a changeable material that will resist.



Trouser Y Connections

Trousers for Y Connections @ 45° branches. Both are available in galvanized and stainless-steel options.



Branch Connections

Branch connections are directly connected at 45° which will ideal solution for industrial vacuum lines. Fitted together with lipped flanged or directly coupling with straight edges.



Adapters - Reducers

Adapters like reducers, end caps, etc.. are all available.



HIGH VACUUM DUCTING SYSTEMS

Vacuum Pipe Coupling

Up to Ø 200 mm diameter, pipe couplings are used for joining straight edge pipes – ducts directly easily at the site. Designed for dust collection, material transport, and industrial ventilation.

EPDM rubber is electrically conductive.
High resistance to vacuum and pressure lines.
Galvanized and Stainless-Steel versions



Vacuum Pipe Coupling

Flap Valves are ideal for connections vacuum applications. Electroconductive type helps antistatic dissipative applications easily for explosive dust.



Slide Dampers

Slide dampers with pneumatically operated is suitable for high vacuum operations together with ATEX accessories like pneumatic connections 5/2-way valves and pistons. Both galvanized and stainless-steel models are available. Up to 200 mm "S" Straight ends are used together with couplings. Above 200 mm "L" Lipped versions are used for the flanged connection. Also, welded Flanged models are available on demand.



Extraction Arms

The extraction arm is designed to carry dust or gas contamination away from the operator's breathing zone. The EA can operate with a filtration extraction system, single extraction fans, and the main duct system where other extraction arms can be connected.

With its self-supporting features, the arms are designed to maneuver easily allowing the inlet to be

positioned accurately over the desired operation zone. Additionally, its special design allows maximum angle adjustment of the hood to guarantee the best extraction position possible without compromising the operator's field of view and movement capabilities.

Food grade / antistatic hose in PU (Polyurethane)
Grounded system
ATEX approved
Stainless Steel (AISE 316L)
Ceiling-mounted

EA Arms components:

- Hood
- Joints (connector, hose section, clamps)
- Upper pipe and lower pipe
- Gas spring
- Damper (Optional)
- Swivel



The swivel allows the arm to rotate 360° around its vertical axis- easing hood handling and arm positioning.

- Easy to maintenance
- Easy to clean
- Easy to position
- Recommended for use in explosive environments, zone 21

Applications:

- Pharmaceutical
- Food
- Chemical Plants
- R&D Laboratory
- Safety Laboratory
- Maintenance Facility
- Welding & Metal Works Facility

HIGH VACUUM DUCTING SYSTEMS

Downdraft Table

Downdraft tables are made to protect users while keeping the environment clean. Dust, smoke, and fumes are drawn away from the operator and the material being worked on.



Environmental Booth

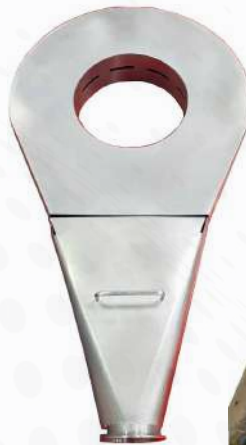
Environmental Booths are used for weighing, sampling, grinding, sanding, finishing, and some other many applications that may require high volumes of capturing dust applications including hazardous materials. ATEX lighting, make-up air, and HEPA filter options are also available.



Extraction Slots & Hood

Extraction slots & hoods are designed according to the application which is tailored-made solutions.

Please contact us for a special engineered solution.



The IIoT consists of internet-connected machinery and the advanced analytics platforms that process the data they produce. Our IIoT program range begins from our machinery service product that our industrial devices can be controlled, monitored or even 21 CFR integrated production protocol activated. Processes are simpler and more effective than before. Even service works are much better and tracked continuously.





APC
AIR PRO CONTROL

Industrial
Ventilation



For a **Cleaner,**
Safer and
Eco Friendly
Working
Environments

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