



**Pharmaceutical**



**Laser Plasma Cutting**



**Paper**



**Composite**



**Chemical**



**Mining**



**Textile**





We produce industrial filtration solutions for dusts, fumes and oil mists to protect workers and environment while supplying safer and productive workspace.

Our factory has 12.650 m<sup>2</sup> closed manufacturing area in Arnavutkoy Istanbul.

Ulpadust, has been established by 10 engineers which are specialized and worked average of 25 years working life in industrial ventilation sector.

Ulpadust is not only focused on equipment sales and at the same time gives installation and commissioning works together with itself and representatives.



## **Quality Policy**

*ULPADUST manufactures according to the ISO 9001 Quality Management System which also complies with Directive 2014/34/EC and has certification from Europe's best independent certification bodies. Our principal quality policy is;*

- Manufacture eco-friendly 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.

*“For a Cleaner and Safer Working Environments.”*

## *UDC Dust Collection Systems*

Industrial Dust Collectors are generally used for cleaner and safer working environments. UDC dust collectors also sustains energy savings with high efficient filtration which also leads to production efficiency increases, product recoveries and air pollution controls.



## *UVDC Vacuum Dust Collection Systems*

UVDC Ulpadust Vacuum Dust Collection Systems are produced for high vacuum and pressurized systems for central vacuum systems, pneumatic transport and bin venting. Tangential cyclone inlet ensures that the coarse dust is directed to the bunker.



**Reliable Ulpadust Dust Collection Systems ensures**



- \* Easy & less maintenance
- \* User friendly applications
- \* Space saving with compact design
- \* Low energy consumption with lower differential pressure
- \* Excellent sealing solutions
- \* Long service life
- \* Long durability with strong construction
- \* ATEX Certified

**Options**



- \* BIBO – Bag In Bag Out Filter change
- \* Explosion venting
- \* Vent deflector
- \* Flameless explosion venting
- \* Explosion isolation systems
- \* Explosion suppression systems
- \* Continuous liner discharge
- \* Special discharge options; Big Bag, Container, Drum, etc.
- \* Fan or blower
- \* Level switch
- \* Auto-pneumatic vacuum valve
- \* Downdraft table
- \* Slot vacuum
- \* Local extractors
- \* Ducts for antistatic applications
- \* Flexible hoses and connections

**Applications**



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

## Cartridge Filters

- \* Better pulse cleaning efficiency with vertical design
- \* Equally spaced pleating with hotmelt increase rigidity
- \* Larger filter surface ensures less maintenance costs
  - \* Low pressure drop, less energy consumption
- \* Long service life with using high quality filter media
  - \* Double PU foam gaskets ensure airtight sealing
  - \* Strong filter construction, self-supporting and easy mounted
- \* Antistatic, flame retardant, cellulose synthetic fibers conductive media
  - \* Vacuum resistant special design
  - \* Nanofiber coated media for more efficient operation
  - \* Other media options available (oleophobic, hydrophobic, washable)

Ulpadust filters provides solutions to safely remove dust in wide range of end applications.

Advanced air filter materials according to type of contaminants meet the dust collector performance requirements.

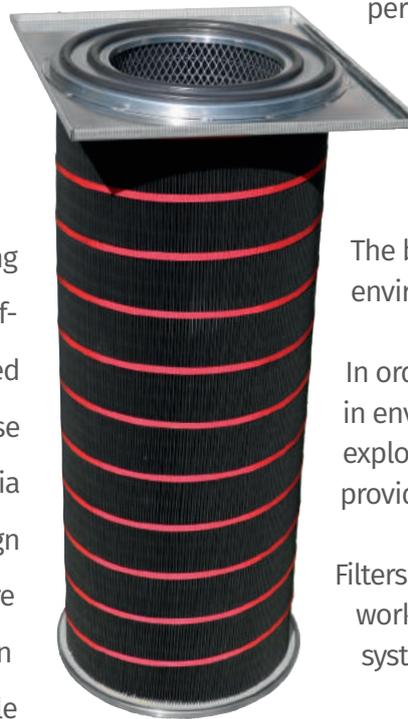
All filters work in reverse-pulse cleaning installations for removing contaminants.

The best product for safer and cleaner work environment.

In order to comply with the protection in environment with high risk of dust explosions, filter with conductive media provides superior filtration performance.

Filters not only collect dust particles, but also work as an active component of protection system against the dust explosion.

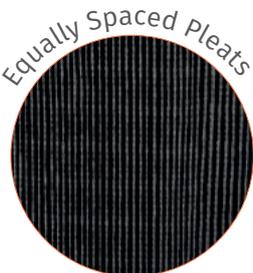
Filter helps for preventing spark injection in the dust collector.



Double Gasket



Breathable Media Pleats

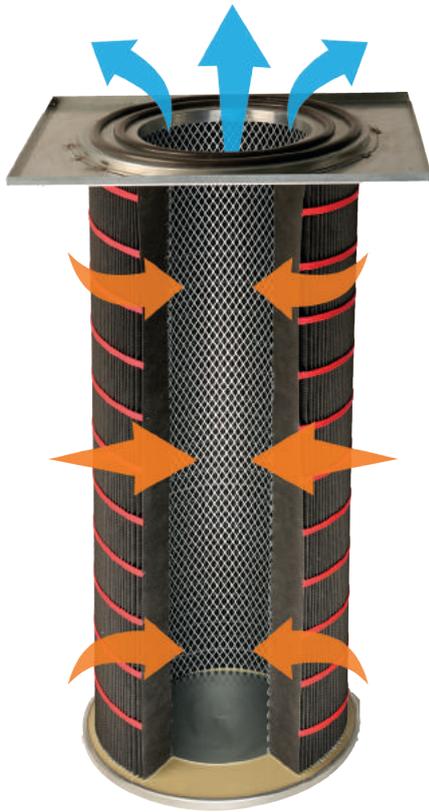


Equally Spaced Pleats

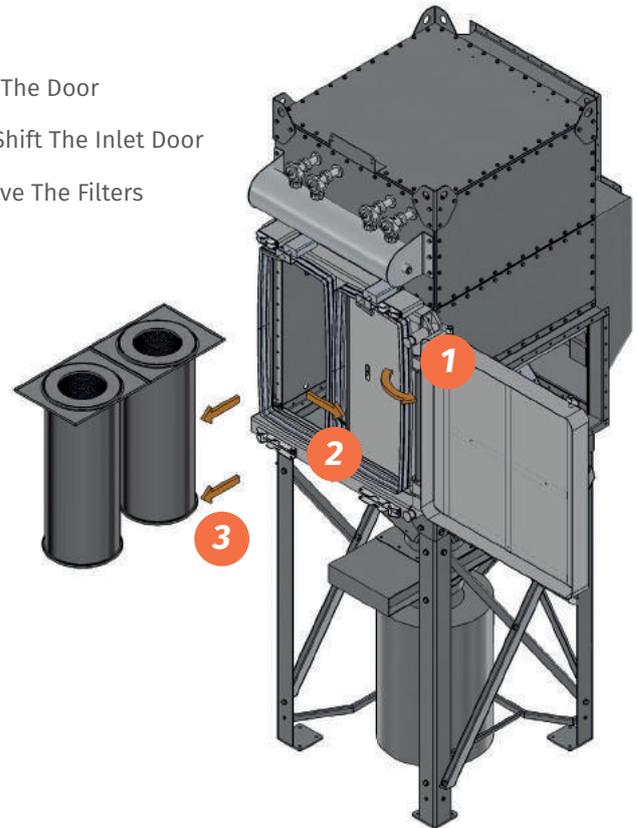
As an additional specification, nanofiber coated media is available against high amounts of submicron size contaminants which are in efficiency range of F7 to F9 according to EN779-2012.

Dust cake more easier release during reverse pulse cleaning than competitors.

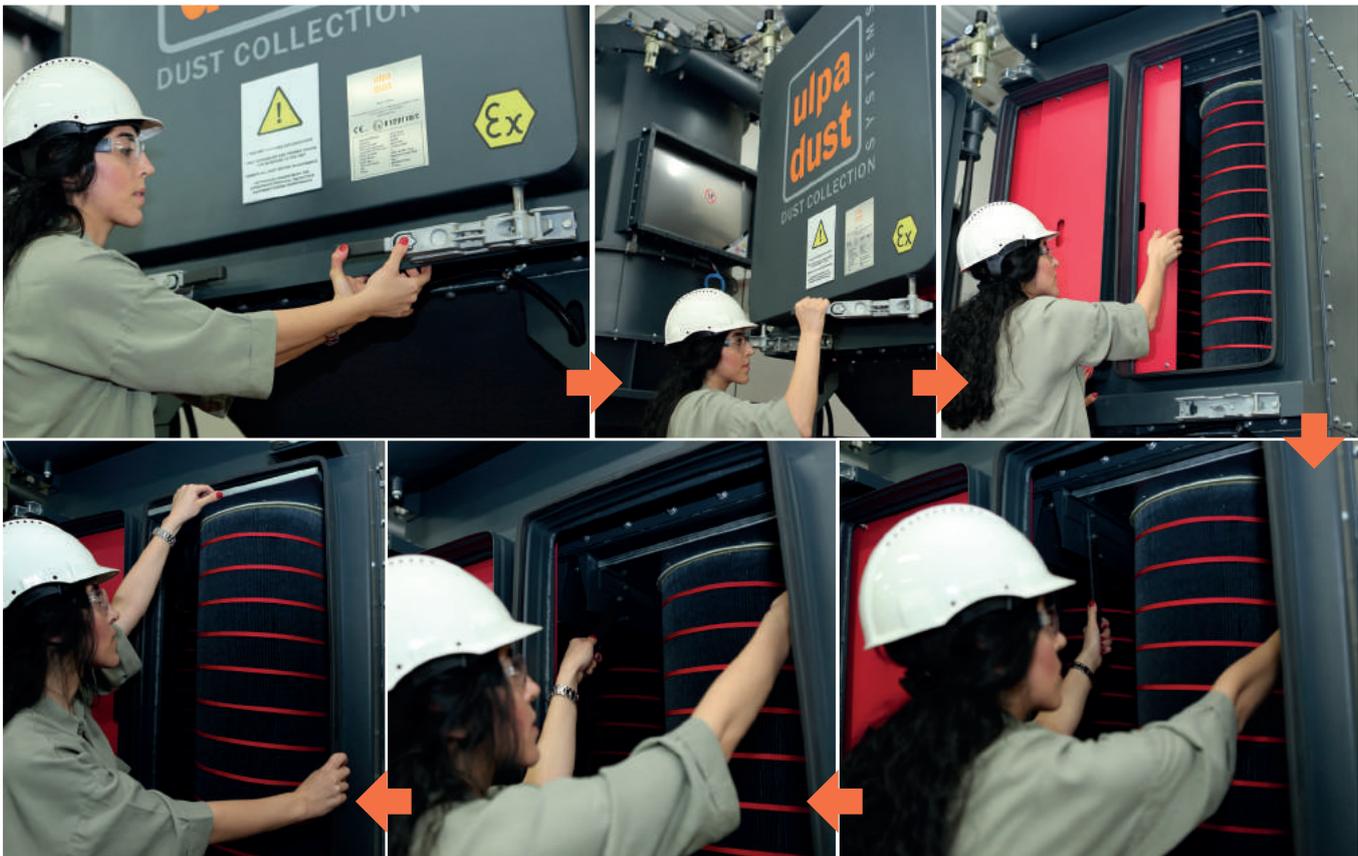
Flame Retardant media available (F1 acc. to DIN 53438).



- (1) Open The Door
- (2) Side Shift The Inlet Door
- (3) Remove The Filters



**Easy Filter Change in few steps!**



## Pharmaceutical Applications



- Mixing & Blending
- Granulation
- Fluid Bed Drying
- Spray Drying
- Tablet Pan Coating
- Tablet Press
- Filling & Packaging
- General Room Ventilation
- Local Exhaust Ventilation
- Central Vacuum



Pharmaceutical dust is highly toxic and explosive. Ulpadust can give solutions with its certified products and systems which are compatible with ATEX legislation.

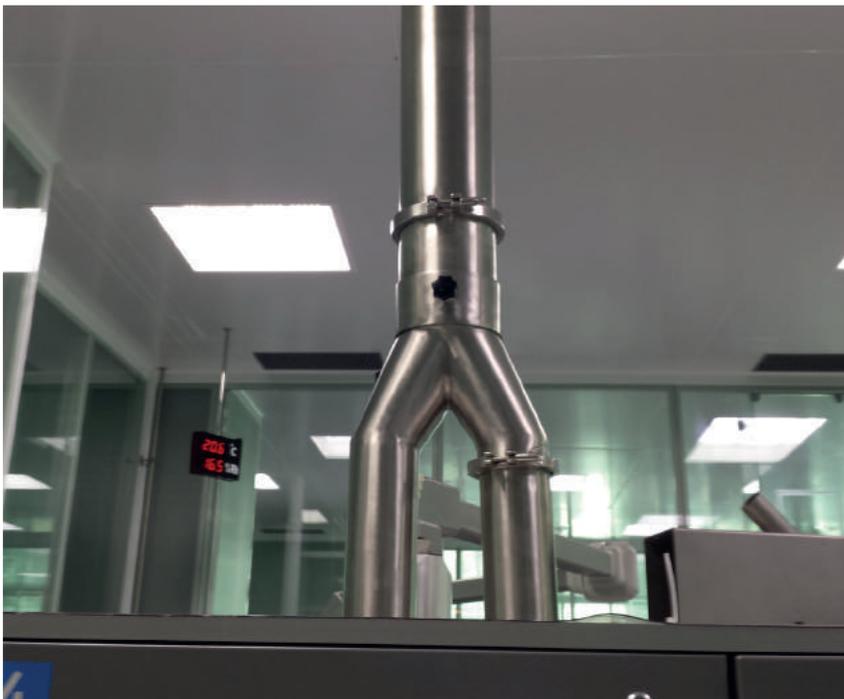


UDC Pharma can easily supply pharmaceutical production demands with its various options and high performance filtration.



- Safe Change - Bag In Bag Out (BIBO)
- Continuous liner discharge
- Safe Change HEPA
- Level switches
- EX complied solutions with ATEX certified products
- Ex venting – Flameless vent solutions
- Isolation valves

As a system applications, UDC Pharma, keeps your facility cleaner, makes your process more productive and protects your workers.



Tailor made solutions gives exactly what you need at the special applications like different pharmaceutical processes. In some pharmaceutical applications, these solutions can be critical for cross-contamination, health hazard etc. Also with some solutions like stainless steel room exhaust ports, pharmaceutical solid dosage manufacturing machine connections (drying, blending, pressing, packaging), local exhausts (acrobat arm) dusts can be extracted directly with minimum required airflows to sustain energy saving. On the other hand, these ports can be easily controlled by safe sliding damper together with the VSD option to increase energy saving. General ventilation solutions are generally used for exhaust air and also together with AHU applications.



## Composite Applications



With the developing technology durable and lightweight materials demand has been increased. That's why, nowadays composite materials are frequently used in aerospace, wind energy, marine, automotive and electrical & electronics sectors.

Clean and dust free surfaces have a critical role in achieving maximum adhesion during bonding of composite materials. As it is known, during cutting, drilling, grinding and polishing, dust and particles form at dangerous concentrations.



The method of vacuuming from the tool as it's the source which is the most effective method for removing dust from the environment. However, in some applications, the dust should be held with downdraft table, slot vacuum or other tailor made solutions. Also, this environment need to be supported with the right filtrations systems which to supply minimum ACH for the enclosed space.



Vacuum and dust collection systems can be operated gradually with the Ulpadust control systems. Ulpadust control systems supplies auto-pneumatic and electro-pneumatic valve solutions together with PLC and VSD options which gains energy saving.



## Paper Scrap & Trim Transport Applications



For the paper scrap & trim transport systems dust collection systems are very essential for optimum working conditions. While paper, carton box can have varied sizes to be filtered, especially tiny dusts may lead to explosion and/or fire. In addition to these, dusts can lead to serious respiratory problems such as asthma, bronchitis, allergic reactions, conjunctivitis and shortness of breath.

To prevent these hazards UDC dust collector will help you to enhance higher filtration standards in your working environment, Ulpadust can give ATEX compliant solutions and certificated dust collectors which ensures safer working environments.



## Rubber Grinding, Scraping & Recycling Applications



Rubber dusts are formed from old tire recycling applications are very harmful for respirable environment due to the health hazards. In addition to this, rubber dust has explosivity minimum ST 1 and can be flammable which can

cause death, injuries, financial and reputation losses.

Ulpadust will keep you safe, healthy, productive and environment friendly.



## Chemical Processing Applications



The dusts are divided into two according to the chemical origin: Organic dusts and inorganic dusts.

While organic dusts don't accumulate in the lungs, inorganic dusts accumulate in the lungs, threatening the human health.



Chemical Industry has various chemical substances produced from synthetic rubber, rubber, detergent, paper, various acids, synthetic oils to pharmaceuticals have a common problem that is hazardous to human health and environment.



That's why chemical powders must be specially managed while packaging.

These products are usually explosive and flammable in powder form. Ulpadust will keep you clean while maintaining safer and healthier environments. Ulpadust can supply ATEX certified products and compatible systems for your dust collection applications.

## Laser / Plasma Cutting & Welding Applications



During laser and plasma cutting many dusts and gases are occurring which are harmful to human health and environment. The resulting dusts and gases are quite poisonous which has to be removed from the working environment.

As it is known, also, during the welding process, heavy fume and dust particles form at dangerous concentrations. These dusts and fumes are quite harmful. These toxic gases and dusts need to be collected by Acrobat Arms or specially designed hoods.



The method of vacuuming from the tool is the most effective method for removing dust and fume from the environment. Some applications, the dust should be held with downdraft table, slot vacuum, etc. Also this environments need to be supported with the right filtrations systems which to supply minimum ACH for the enclosed space.



## Food and Agriculture Applications



Explosion intensity in dust is directly related to the particle size. The smaller particle size, the greater danger extent. The size of the powder particles stored and transported throughout the process gradually decreases due to dragging and friction.

According to the research conducted in 2016, the most dust explosions occur in the food industry with a percentage of 33%.

Some of explosive dusts in food industry;

- Sugar
- Flour
- Starch
- Dry milk
- Cacao
- Instant coffee
- Spices
- Instant soup etc.



## Textile Filtration Systems



In modern textile plants with high speed machines, its 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 a required level while keeping the working environment clean always.



### Rotary Drum Filter

- Automatic travelling suction nozzles
- High pressure suction fan
- Modular design
- Automatic control depending on differential pressure or time-delay
- Separated drive system for drum and traveler
- Powder coated painting

### Compacting Units

Separating and compacting units process synthetic and natural fibers like cotton. Air contaminated by waste fiber is removed by suction from the production process, separated from the airstreams and then deposited in bugs or containers.



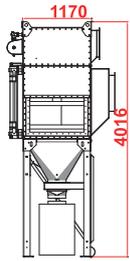
### Prefilter

Used as an economical solution for first stage filtration of airstreams with high fiber content.

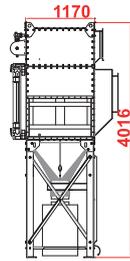
### Cyclone Separator And Compactor

Designed for first stage filtration of airstreams with high dust, coarse particle and short fiber content.

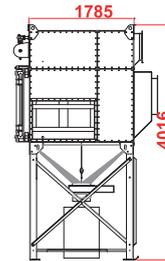




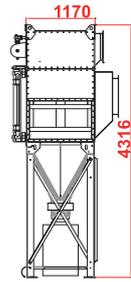
UDC - 2



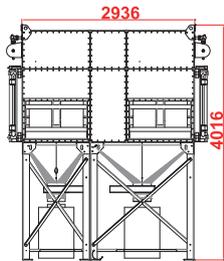
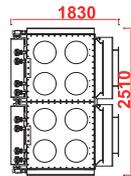
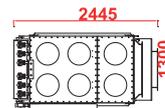
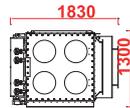
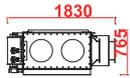
UDC - 4



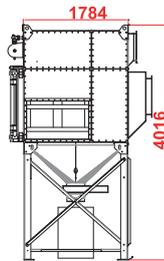
UDC - 6



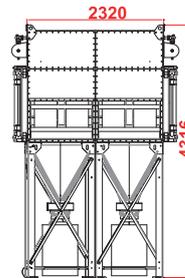
UDC - 8



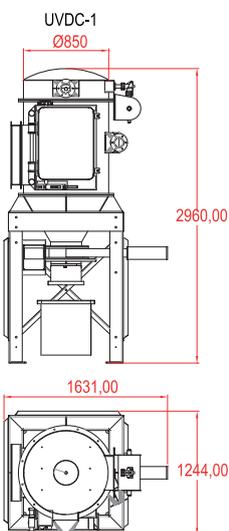
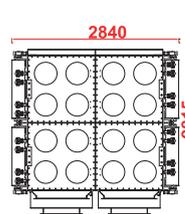
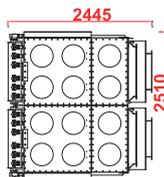
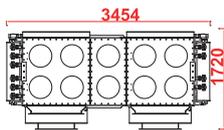
UDC - 10



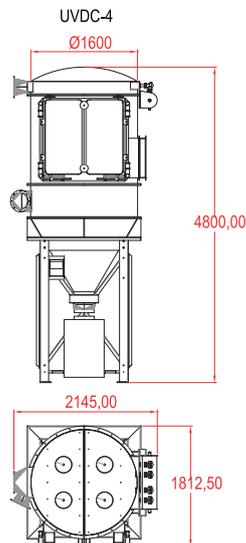
UDC - 12



UDC - 16



UVDC-1



UVDC-4

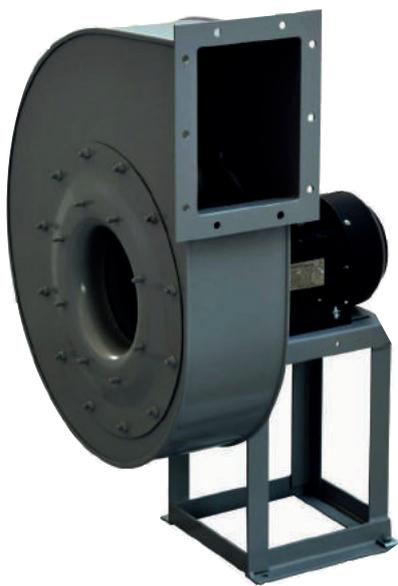


## Industrial Fans & Blowers

Depending about the pressure and airflow level users can select fans, blowers or root blowers. Ulpadust can give exactly what you need depending on the application and ducting.

Radial fans are used for medium airflow and pressure, blowers are for lower airflow and high pressures and root blowers are used for medium airflows with higher pressure levels. All systems can be supplied with following options;

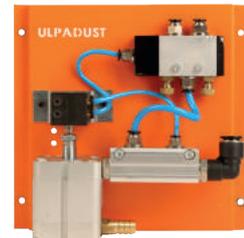
- ATEX certificated
- Frequency inverter controlled
- IE3 motors for energy saving
- Spark proof
- Silencers



## Options

### **Auto-pneumatic Vacuum Valve**

The central filtration systems can be operated gradually by suction/vacuum points. In some applications, Ulpadust auto-pneumatic vacuum valve offer solutions that can control the amount of suction which lead to energy savings.



### **Downdraft Table**

The method of vacuuming the dust from the tool is the most effective method for removing the dust from the environment. The downdraft table application destroys the source of the dust in the resulting process.



### **Environmental Control Booth & Room Solutions**

Environmental controlled work stations are generally used for keeping breathing zone clean while handling large and irregular parts.



## Safe Change HEPA Housing

- \* Versatile modular system
- \* Robust and strong construction
- \* Self-adjusting filter sealing mechanism
- \* Available powder coated or stainless steel
- \* Differential manometer connection port for each stage filter
- \* Single or multiple filter stages with overall filter heights
- \* Optional aerosol injection and particle measurement connection



### Field of application;

- \* Pharmaceutical Plants
- \* Nuclear Power Plants
- \* Chemical Industries
- \* Biotechnical Facilities

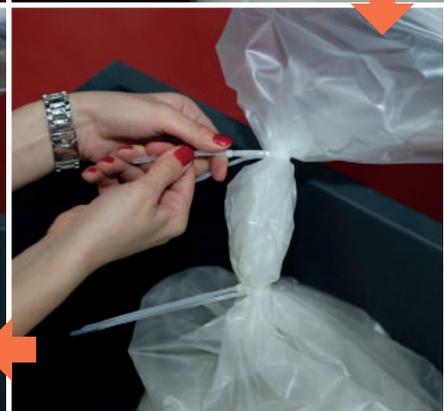
## Safe Change Systems





### ***BIBO - Bag In Bag Out (Safe Change Doors)***

Access to the cartridge filters are supplied together with the bags that prevents personal from the dust exposure. BIBO increases work safety while decreases the house keeping of the technical area.



### ***Continuous Liner Discharge***

This discharging method helps for continuous discharging to the bag without any time delay at the process.



### **Rotary Valve**

Rotary Valves are the ideal solution for feeding the powder or granular materials from hopper to the dust container.



### **Double Sliding Valve with Big Bag Discharge**

Ideal solution for continuous and heavy industrial operations.



### **Explosion Vents**

Venting is the most commonly used method to protect dust collectors against destruction or deformation as a result of the excessive forces exerted by explosion pressure. Explosion vents are designed to protect the dust collector from overpressure of deflagration. Vent opens at a constant pressure to prevent the pressure increase inside the dust collectors. Dust collector and venting area has to be at a safe area.



### **Deflectors For Explosion Vents**

The use of deflector plates is an accepted way of reducing the extent of the hazardous area external to a vent. In the case of a blast, deflector used to direct and limit the flame emitted from the collector.



### ***Flameless Explosion Venting***

Flameless explosion venting is a flame arrester that is designed to protect people and equipment from the flames and the dust, only releases the post-combustions gases.

- \* Flame extinguishment
- \* Dust retention
- \* Economical installation
- \* Fast, easy and more economic return to production
- \* Easy, quick field refurbishment
- \* ATEX certified



### ***Passive Explosion Isolation Valve***

Isolation valve prevents explosions from spreading through dust collectors to inlet ducting. Valve is a “passive” valve, meaning it is closed by the explosion pressure itself and it resets automatically after an explosion vent. In dust collector unit, a pressure wave will force to close the flap plate and lock in position. When flap plate is closed it makes an effective barrier against approaching flame front.



### ***Flow Actuated Explosion Isolation Valve***

Flow Actuated Explosion Isolation Valves are closed by the force of energy supply, detectors or system controls. Design is made as to close in milliseconds providing a mechanical barrier against flame and pressure.



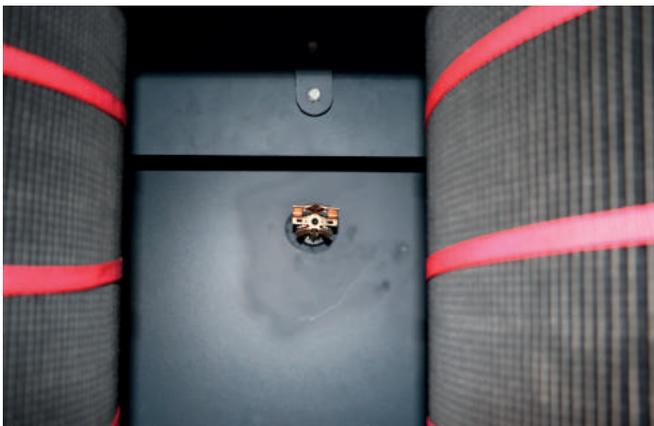
### ***Explosion Isolation Valve***

After the detecting an explosion, valve is designed to close within milliseconds. Valve prevents the spread of flames and pressure (in both directions), effectively preventing an explosion from moving through your process piping or duct work.



### **Explosion Detection and Control**

Detection and Control Systems are pre-configured to recognize danger signs and make important decisions about when to activate explosion isolation and/or explosion suppression systems, effectively preventing an explosion from damaging your equipment and facility.



### **Chemical Suppression Systems**

Suppression systems are designed to detect and chemically suppress an explosion in its earliest stages before an explosion can cause a disaster or become catastrophic.

### **Chemical Explosion Isolation**

Chemical Explosion Isolation is achieved through a rapid discharge of a chemical explosion suppressant to prevent the flame from continuing through to other areas of your process system. An explosion detector initiates the release of the extinguishing agent when it detects a deflagration pressure or flame front preventing the propagation of flame and burning materials.



### **Sprinkler Fire Extinguishment**

Sprinklers are used for extinguishment of the fire inside the dust collector. Generally, water, foam or chemical extinguishment is chosen according to the dust flammability properties.





### **Fan Controller**

Fan Controllers together with the VFD option control the dust collector system energy efficiently. The airflow is continuously controlled and fixed on a current arranged value.



### **Dust Collection System Control**

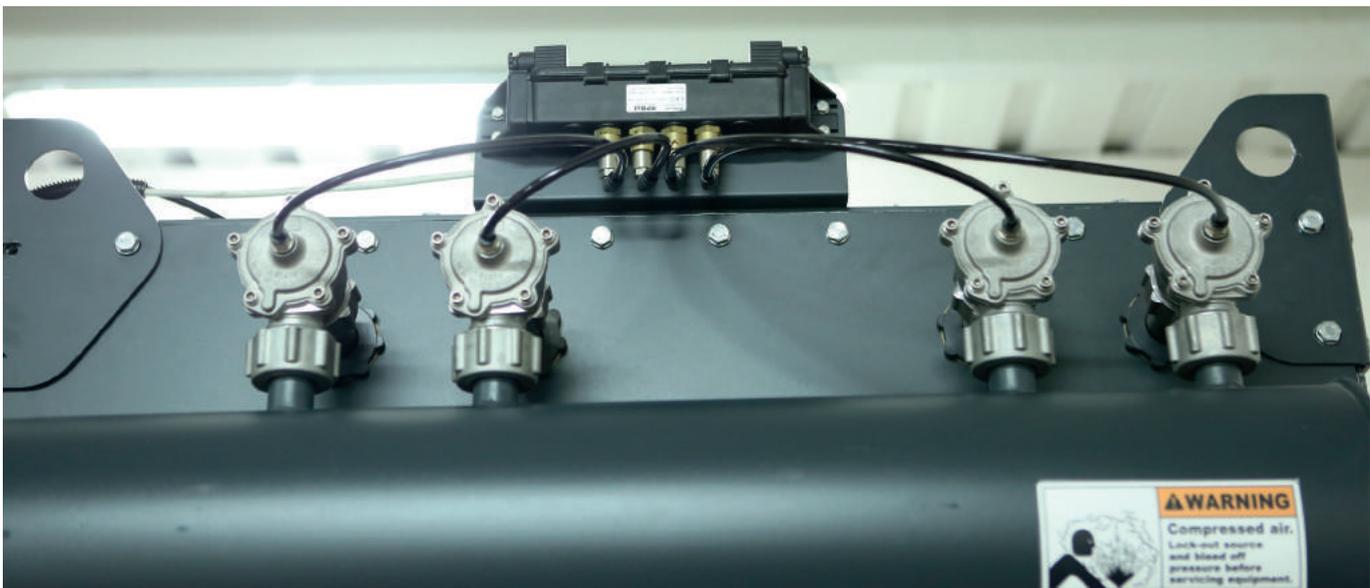
Multiple room & zone working conditions can lead to control different airflow values. To save energy and to increase the life time fan control option is done together with PLC, VSD and sliding damper options. Damper controls are generally pneumatically controlled and system equipment antistatic connected.



### **Automatic Filter Cleaning Control & Remote Pilot Box**

The ECOSERIAL P is an economizer with internal pressure gauge and it is equipped with a LCD display that showing the real time values of internal differential pressure gauge, running electro valves, current status of cleaning cycle type of functioning and possible alarms.

Remote Pilot Boxes are 2 wire systems serially connected and may control large number of valves, since they eliminate the considerable cost of the electrical connections.



### **Level Switch**

Level switch is a robust limit switch for silos with fine-grained or coarse-grained, non-fluidized bulk solids. The level switch used in dust collection systems is a vibrating type.

The vibrating level switches are not affected by dust, static loads, conductivity changes, temperature, pressure and humidity.

## Local Extractors

In industrial environments, a large amount of gases, fumes, particles and dust are mixed into the air. It must be cleaned by sucking such as extremely harmful gas, dust, smoke, mist etc..

The ideal solution for protection of works areas can be guaranteed with vacuum system. The acrobat arms extend the working area by being able to rotate 360 degrees in terms of usage. Acrobat arms sucking dust, smoke, harmful gases easily from the source without spreading.



**Heavy Industrial**



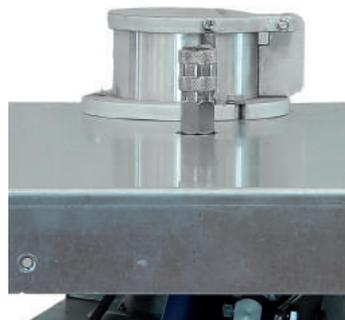
**LAB EX**



**Standard**



## Exhaust Nozzles



### Exhaust Hoses & Connections



### Dust Collection Ducts, Clamps, Bends



### Pneumatic Sliding Dampers



### Cleaning Apparatus



## Wet Filter Systems



Wet filters are used for the dusts which cannot be filtered dry by cartridge or bag filters due to the physical and chemical properties. These filters are suitable for explosive atmospheres also.

General parts are;

- Venturi Nozzle
- Drop Separators
- Water tank with level regulator
- Sludge dragger or automatic discharge unit

## Gas Scrubber Systems



Gas Scrubber Systems are the most common exhaust treatment systems used for the removal of combustion gases, process waste gases, vapors and other pollutants that are generated during the activities of various industrial productions. For the 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

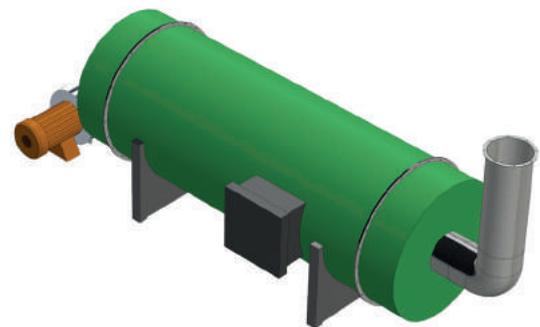
which best fit design and production together with our exploration and measurements.

Gas scrubber types are; **single – multiple stage, packed bed - unpacked bed, Venturi, hydro cyclone, spray, air cooled** that all have high efficiency according to the suitable processes and all made in our facility. Our gas scrubbers have full process control which supplies low initial costs with low operating costs.

## Thermal Oxidizer Systems

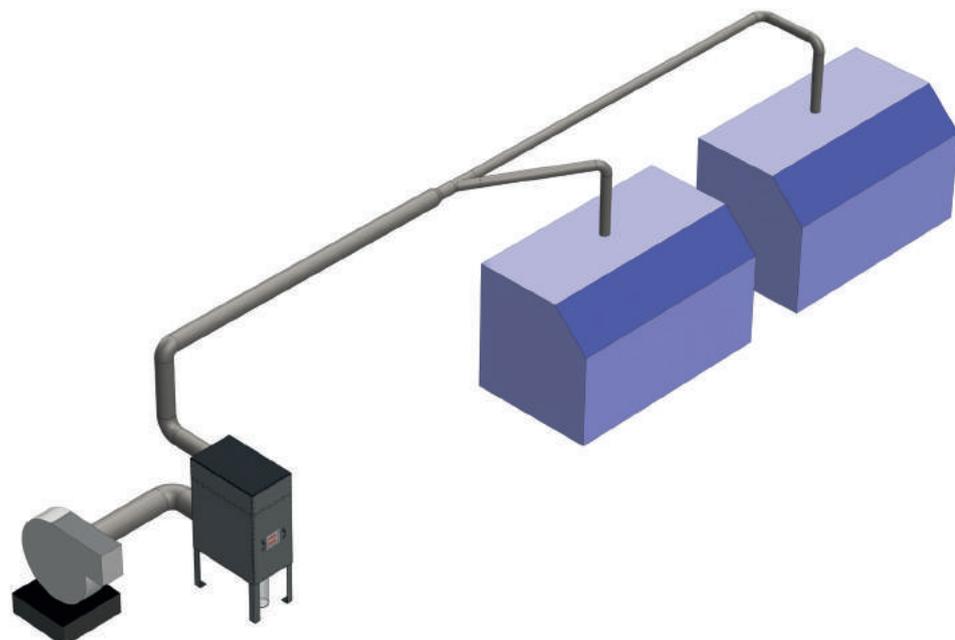
In chemical, metallurgy, foundry, thermal processing, food, painting, textile, artificial leather and waste water treatment facilities generally produce VOC (volatile organic compounds), gas / vapor wastes and odor problems that can be solved best and sometimes only with thermal oxidizers. All own produced products developed in our facility has heat recovery and full process controlled that

VOC, smokes which include oil droplets, unwashable gases and vapors and odors are eliminated at the facility proper with the environmental regulations. Thermal oxidizers also are the most economic and environmental friendly technology for the industrial liquid waste including high COD/BOD.



## Oil Mist Filtration Systems

Oil mist problems are generally formed due to machining, food and etc processes that leads to the polluted exhaust air which contains oil mist. Oil mist filters are used for to protecting people, keeping clean the working environment and also increasing the productivity.



# ULPADUST INDUSTRIAL DUST COLLECTION SYSTEMS

ulpa  
dust

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DUST COLLECTION

*“For a Cleaner and Safer Working Environments.”*



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