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**DELTA MIDDLE EAST LLC**

*Committed to Engineering....*

# ABOUT US

*Committed to Engineering....*

Delta Middle east LLC., is a young start-up with clear foresight and a vision of becoming a market leader in the manufacturing and servicing of various types of Air pollution control systems & Material handling systems, **DELTA** will soon become a dominant player in the Middle East region.

Our company has a culture which is dedicated in consistently improving its product and services. We have the resources and technical capabilities to suffice any needs of our customers in all kind of industries. We always strive to utilize cutting edge technology in delivering finest possible service and systems to our clients. For a detailed view of our different product & services, you can have a look at our media section.

# **PRODUCTS & SERVICES**

- ✓ **AIR POLLUTION CONTROL**
- ✓ **MATERIAL HANDLING**
- ✓ **ENGINEERING SERVICE**

## AIR POLLUTION CONTROL

- Pulsejet Bag Filters
- Cyclone separator
- Fume exhaust systems
- Unit Dust collectors
- Multi cyclones
- Manual & Mechanical shaking bag filters
- Accessories

## MATERIAL HANDLING

- HOPPER & SILOS
- BUCKET ELEVATORS
- CONVEYORS
  - SCREW CONVEYORS
    - 1) TUBULAR SCREW CONVEYOR
    - 2) U-TROUGH SCREW CONVEYOR
  - BELT CONVEYORS
- ACCESSORIES

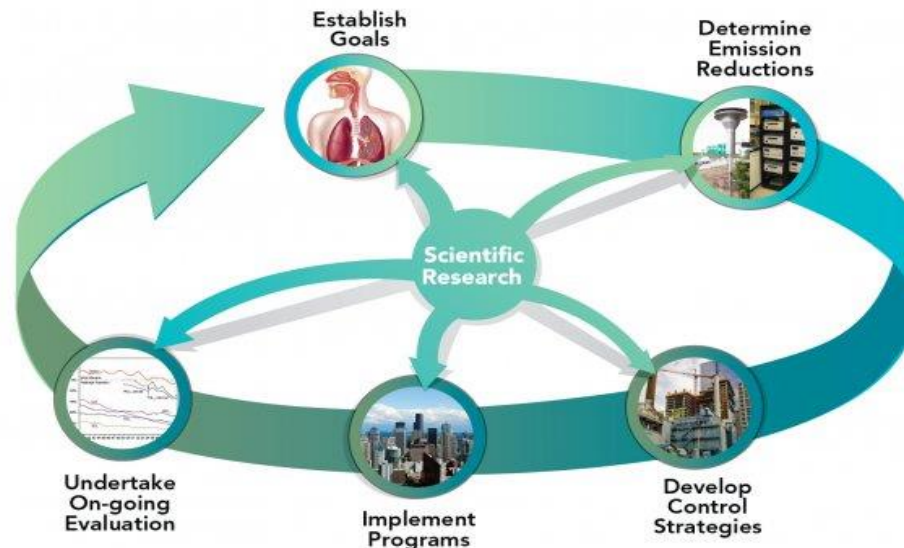
## ENGINEERING SERVICES

- EPC
- CONVEYOR BELT REPAIRS
- CRUSHER PLANT MODIFICATIONS & IMPROVEMENTS
- DUST CONTROL SYSTEM MODIFICATION & IMPROVEMENTS
- MAINTENANCE CONTRACTS

# POLLUTION CONTROL

DELTA specializes in a wide range of effective and economical dust collection solutions for every application. From small-scale nuisance dust problems to continuous process applications involving high volume heavy-duty product recovery. We can design solutions to meet any of your requirements.

## AIR QUALITY MANAGEMENT CYCLE



### Pulse jet Bag filters system:



A pulse jet dust collector is a suction and filtration system. As dust-laden air is drawn into the system, filter media will collect dust, while clean air is discharged from the collector. Compressed air is applied in reverse pulse to clean the filter media.

Manufacturing environments such as chemical and mineral processing plants, grain mills, food processing plants, steel mills, metalworking and fabrication shops, asphalt plants and many other industries all benefit from pulse jet bag filters to maintain air quality and meet EPA safety standards.

## Cyclone separators:

**Cyclone separators** are systems designed for **treating pollutants** by separating the contaminated particles and using moving parts. The air flow and dust enter the system which consists of two concentric **cylinders** which push the particles against the walls, allowing the air to leave. In this way, the dust falls to the bottom of the system and can be collected for treatment.



## Fume exhaust systems:

A fume extractor is a system utilizing a fan to pull fumes and particulate into a filtration system cleaning the air of harmful chemicals and particulates. Industrial processes create fumes or particles such as welding, sanding, grinding, spraying, powder filling, and chemical applications.



## Unit dust collectors:

The dust collector is a system used to enhance the quality of air released from industrial and commercial processes by collecting dust and other impurities from air or gas. Designed to handle high-volume dust loads, a dust collector system consists of a blower, a dust filter, a filter-cleaning system, and a dust receptacle or dust removal system. It is distinguished from air purifiers, which use disposable filters to remove dust. The performance of industrial dust collectors makes them ideal for localized extraction directly onboard process machinery.



## Multi Cyclones:

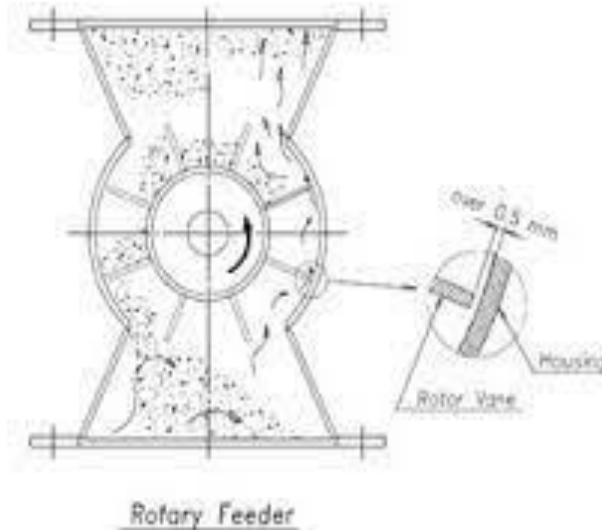
Multi-cyclones are industrial de-dusting systems characterised by the capturing of small diameter elements, known as cyclones, which are positioned in parallel, inside a metal box. The functions of these filtration systems are very similar to those of the cyclone separator, which uses the physics principle of centrifugal force. The particle-laden air enters the cyclone through a tangent intake. The centrifugal action projects the particles against the cylinder wall, thereby causing a descending spin motion that forces the particles out. As for the air, it is evacuated to the central chimney created by the difference in internal pressure of the cyclone.



## Accessories:

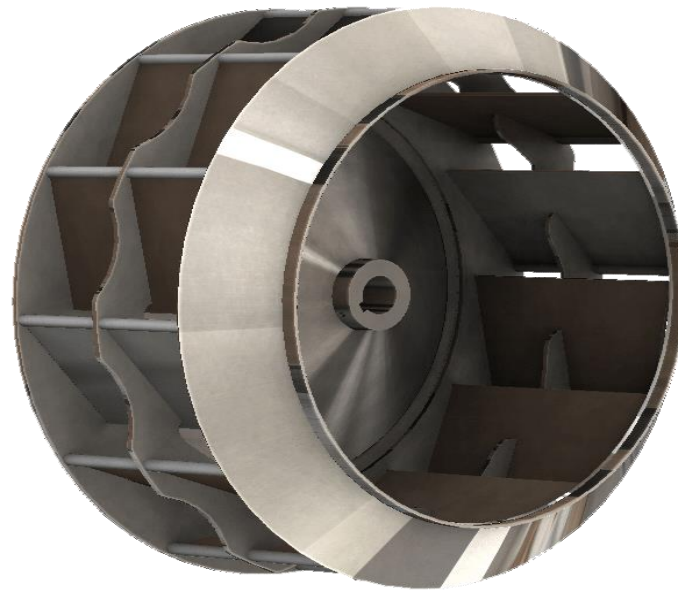
- **Rotatory airlock valve**

They provide feeding & metering functionality of a standard rotary airlock feeder but their primary duty is to maintain pressure & provide an optimal airlock seal between different product conveying transitions, such as gravity to pneumatic conveying systems lines. An optimal Rotary Air and Lock Valve condition is essential to prevent air pressure loss in high pressure rotary airlock valve & high temperature conveying systems.



- **Blowers**

Centrifugal Blowers / Centrifugal fan forms an important part of an industrial application that requires air for process. Centrifugal blower operates on the principle of centrifugal force, as the impeller rotates at high rpm, it pushes the air at inlet towards its periphery and is guided along the blades. Centrifugal blowers are more efficient, smaller in size and produce high pressure. Professionally skilled engineers enabled us to provide customization facility to our valued customers ensuring premium quality desired products at stipulated time.



- **Solenoid Valves**



Pulse jet valves are used in filtering systems of dust collectors, gas turbines, and desulfurization equipment. They are commonly used to clean filters such as cartridge filters, envelope filters, ceramic filters, and sintered metal fiber filters. Here, we discuss how these valves work in a typical application for dust collector systems.

**Filter Bags:**

High-efficiency filter bags that offer premium filtration performance for all types of baghouse dust collectors. Our specialty fabric bags are designed specifically for high-temperature applications.



# MATERIAL HANDLING

## Hopper:



Hoppers are stone-loading containers that keep and feed the product at a slow and constant speed to the next part of the crushing-screening line.

\*\*\* Lower part of the hopper is narrowed and equipped with a small vibrating feeder, which controls the feeding speed of the product.

\*\*\*Speed control of the vibrating feeder can be adjusted from the control panel, which regulates the rotation speed of the vibromotor.

## Bucket elevators:

A bucket elevator is a mechanism for hauling flowable bulk materials vertically. A bucket elevator can elevate a variety of bulk materials from light to heavy and from fine to large lumps.

A centrifugal discharge elevator may be vertical or inclined. Vertical elevators depend entirely on centrifugal force to get the material into the discharge chute, and so must be run at a relatively high speed. Inclined elevators with buckets spaced apart or set close together may have the discharge chute set partly under the head pulley. Since they do not depend entirely on centrifugal force to put the material into the chute, their speed may be slower.

These conveyors specialize in vertical conveying of large amounts of material ranging from heavy iron ore pellets to sand, fly ash and other dusty, powdery, dry material.



## Conveyers:

### 1) Conveyer belt

Conveyor belts are one of the main parts of stone crushing-screening equipment. Used for transporting stone material between separate units of the crushing-screening-sand washing line, conveyor belts keep the main role as transporting and stocking of products. Having different length and width dimensions, conveyor belts are chosen according to project features.



## 2) Screw conveyor:

### • Tubular screw conveyor:

Tubular screw conveyor and feeder is an exceptionally versatile device to a variety of requirements of transport of powder or granular material. The tubular screw conveyor is custom designed as per the material, distance and rate of conveying involved.

Tubular screw conveyor consists of the following components: at least one inlet and outlet spout, a flange at each end, helicoid screw flight welded on a center pipe with coupling bushes at each end, two end bearing assemblies with self-adjusting shaft seal, a number of intermediate hanger bearings depending on the overall length of the screw conveyor.

This screw conveyor is widely used in food, chemical, polymer industry and in many industrial applications.

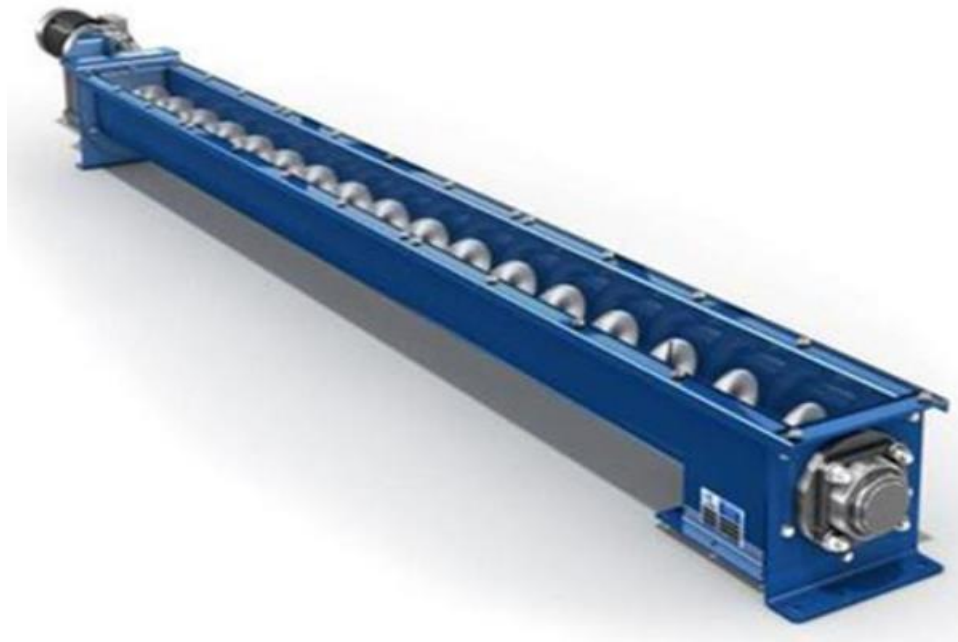
- Screw diameter ranges from 50mm to 800mm
- Available in MS & SS construction
- Varying pitch for preventing preferential feed
- Available for inclined applications



- **U-TROUGH SCREW CONVEYOR**

Our U-trough screw conveyor is widely used for conveying of bulk solids such as powders, granules, flakes and pellets. Construction is such that a helical screw flight is welded on a center pipe depending on the overall length of the screw conveyors. We supply these screw conveyor feeders for critical applications, such as jacketed construction for heating or cooling of the product. Most of the standard conveyors are built for captive consumption as a part of our turn key projects for food, chemicals, breweries, distilleries & starch manufacturers, etc.

U-trough screw conveyor has a rough and adaptable design. It gives a steady transportation of dry solids materials without causing preferential feed. We custom design and manufacture [screw conveyors](#) as per the requirement.



# ENGINEERING SERVICES

DELTA always seeks out ways to increase production and reduce your operating cost. We analyze the data and search for ways to make improvements. The end result: we recommend new procedures & improved equipment.



## Conveyor belt repairs:

### Belt Splicing and Repair - Fabric Ply, Steel Cord

- Belt Splicing (By Cold & Hot Process)
- Longitudinal Rip Repairs
- Belt Recapping

### Pulley Lagging

- Lagging in cold process
- Autoclave hot process
- Ceramic Lagging

### Conveyor Belt Replacement Service

- Replacement of damaged / old belt conveyors

### Cold & Hot Vulcanizing solutions & Hardeners



## EPC:

Team Delta is specialized in EPC (Engineering, Procurement and Installation) of Crusher plants, Concrete products plants. Screening plants and all kind of air pollution control systems.



- **CRUSHER PLANT MODIFICATIONS & IMPROVEMENTS**

Team DELTA utilizes their experience to improve or modify the crusher plants to get optimum productivity and quality production output.



- **DUST CONTROL SYSTEM MODIFICATION & IMPROVEMENTS**

We are specialized in design and development of all kind of dust control system. Our engineering in dust control system designing as per the requirements of the customer and find out the root cause to improve the efficiency of the system,



## ▪ MAINTENANCE CONTRACTS

We are expertise in all kind of maintenance activities in any manufacturing plans and our decade experienced team have very rich experience in the effective maintenance of the following plants which will help the customer to reduce the machine downtime and leads improvement in their productivity.

- \* Crusher plants
- \* Screening plants
- \* Concrete products plants
- \* Ready mix Plants
- \* Air pollutions control systems

