

# Creating Excellence in Engineering







# PROFILE



## About us

In 1994, as sole proprietorship Mr. Rajesh Kumar started the operation with a team of 20 to 25 people in the process industry with job contract of Bulk Material Handling & Ash Handling System. With the yielded success soon a Private Limited Company viz., Tescon Engineers Pvt. Ltd. was formed with satisfied customers willing to place repeat orders.

In short span of 18 years, we have 40-45 installations to our credit. Tescon Engineers Pvt. Ltd. an ISO-9001:2008 certified company with its head office in New Delhi, India is a multidisciplinary company with diversified interests in Power Energy & Process Industries. We are now executing Coal, Bagasse, Lignite and Biomass fired power plants with unit size ranging from 1 MW to 250 MW.

We believe in satisfying customer by offering quality products in the specified time. We support the customer with the after sales service in time as per his requirement. We thrive for offering products and services to the customer backed by latest technology.

## Our Vision

Come first in customers mind as the most trusted company. An agency to provide total solution for energy and infrastructure.

Benchmark quality, resource, reliability.

Single point contact for your project management allowing you to focus on your business.

## Our Mission

To design and implement plants at the minimum capital cost & ensuring high plant availability. To create excellence in engineering, research and development, innovation and balancing various resources.

To continually improve our expertise and give world class service to satisfy customer needs.

Utilize resources effectively for minimizing the project cost and timely implementation.

## Quality Policy

Tescon Engineers Private Limited is to further enhance its pool of talent and offer the facilities, incentives, environment and infrastructure to simulate organizational vision of offering world class integrated solution in the energy sector. As a group we are confident that by understanding the customers requirement, anticipating their future needs and responding with innovative solutions. We will continue to grow and lead the industry forward by empowering engineering innovations.

## Services and Support

Tescon Engineers Pvt. Ltd. Covers all the activities of Material Handling & Ash Handling Systems including on-site supervision during installation system start up and training in the operation of the system. Frequent lectures are arranged for the training of the office and site staff for the awareness of the ISO 9000:2008 Quality Management System.





# BULK MATERIAL HANDLING SYSTEM

## Manufacturing Set Up

We have manufacturing set up at Najafgarj, Delhi where we have manufacturing facilities for swing hammer coal crushers, vibrating screen, gantries and trestles for conveyors, pulley and associated components related to Bulk Material Handling System. For Ash handling system we have manufacturing facilities for Demo valves, transporting vessels, air receivers, jacketed surge hoppers, bag filters, ash conditioners, rotary feeders, structure and other fabricated items. The unit has a versatile manufacturing set up comprising of a fleet of Lathe, drilling machine, slotters, Power hacksaw, hydraulic press, plate binding machine, various welding rectifier sets and transformers.



## Production Program

### COMPLETE BUILT UNIT PRODUCTION

- Tank, Vessels, for Liquid storage
- Pressure Vessels, for Compressed air/gas
- BIS – 2825 and ASME Sec, VIII, Div, 1
- Bulk Material Silos
- Screw Conveyors
- Bucket Conveyors
- Apron Conveyors
- Lean Phase and Dense Phase Pneumatic Conveyors System
- Dry Supporting Steel Chimney
- Screw Auger & Cleaning Bucket for Pile Drill Rigs
- Horizontal Soil Boring tools
- Industrial Grating
- Engineered Structural Fabrication
- Crushing & Screening Plant
- Belt Conveyors

### BULK MATERIAL HANDLING SYSTEM FOR

- Cement Plants
- Power Plant
- Fertilizer Plants Chemical Plants
- Mineral Processing Plants Steels Plants
- Paper Plants Sugar Plants
- Mines Various Process Plants

### TURNKEY PROJECTS

- Coal Handling Plants
- Ash Handling Plants
- Crushing & Screening Plants
- Storage & Loading Plants

### STEEL CONSTRUCTION

- Bins & Bunkers
- Tanks & Silos
- Conveyor Super - Structures

### MECHANICAL TRANSPORTS

- Belt Conveyors
- Chain Bucket Elevators
- Apron Feeders
- Screw Conveyors – Gravity Powerised
- Motorized Trippers
- Table Feeders, Reciprocating Feeders

### ENGINEERING

- Consultancy
- Design
- Case Studies
- Shop Drawings

### FIELDS WORK

- Supervision
- Erection of Equipment
- Commissioning of Equipment





# MATERIAL HANDLING SYSTEM

## Belt Conveyors

We specialize to offer a superior range of Belt Conveyors, which is used for carrying material from one end to another. We provide our range in various lengths and widths as per requirements of our clients. Moreover, our range is acknowledged for its robust construction, high load carrying capacity and energy efficiency



## Apron Conveyor

Apron conveyors are constructed of a series of pans with rimmed edges to ensure minimum material loss. Apron conveyors are ideally matched to the special demands involved in the transportation of hot materials. The tried-and-tested mechanical components of apron conveyor technology are the basis for extreme reliability and problem-free operation. The use of high quality construction materials in combination with technologies developed down to the last detail and manufacturing precision ensure a long service life and guarantee significant economic benefits.

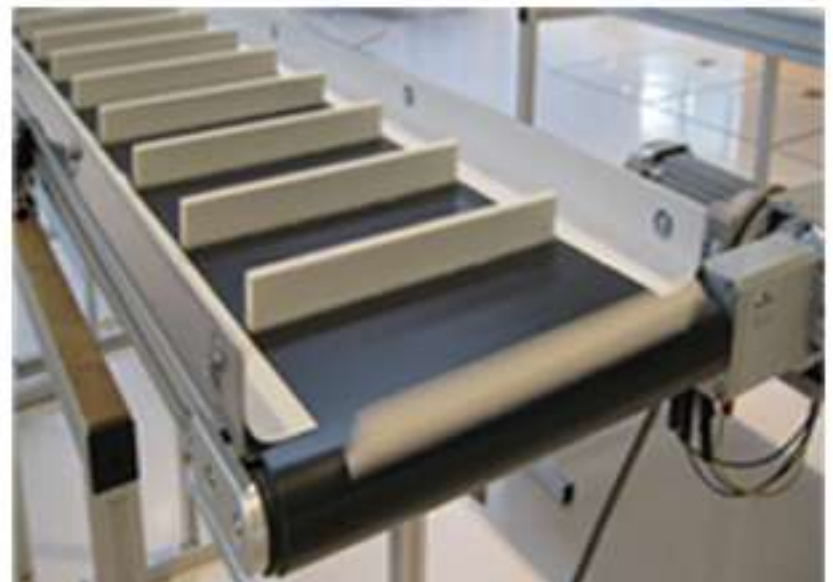


## Cleated Belt Conveyors

High tensile strength cleated belts offer superior strength-to-weight ratio and are available in various styles and heights up to 40 meters. Cleats are welded to suit the customer desired spacing and never glued to the top surface of the belt. All components of our conveyors are produced on state-of-the-art manufacturing equipment.

### Advantages of Cleated Belt Conveyors:

- **Prevents Product Degradation:** From the feed hopper to the discharge point, the belt is capable of turning through any angle up to a vertical line and back to the horizontal. This eliminates the need for multi drives and prevents product degradation.
- **No Spillage with steep angle Conveying:** Once material is loaded onto the belt it is effectively contained between the Sidewalls and is prevented by the cross cleats from falling back
- **Minimum Maintenance, Long Belt Life:** The belt itself requires no maintenance and the reduced number of moving parts plus simple conveyor construction virtually eliminates costly downtime. The actual components used in the belt have been developed from high strength abrasion and wear resistant material to extend operational life
- **Low Power Requirement, Quiet & Smooth Running:** A clear advantage of Conveyor Belt system is the low power required to move the loaded belt. As the belt runs on rotating idlers, the low resistance results in a quiet system, an advantage when operating in close proximity to personnel.







# MATERIAL HANDLING SYSTEM

## Roller Conveyor

We offer wide range of Roller Conveyors is suitable for light conveying applications. Roller Conveyors are ideally suited for conveying items up to 20kgs such as cardboard boxes and tote boxes or other items of such size and weight. The rotating rollers push the product along the conveyor while the shaft is usually driven by an electrical motor. The conveyor electronically controls how specific sections of the conveyor system interact with the products being conveyed. Items conveyed have to be of adequate size and shape so that they would not fall between the moving rollers. If the product being conveyed is of varying size, the belt conveyor system is generally used as an alternative option.



## Drag Chain Conveyor

Drag chain Conveyor range to cater to the varying capacity, environmental, geographic and service requirements. Drag Chain Conveyors are used to convey large capacities of material through smaller cross sections using less horse power. The Drag Chain Conveyors are completely enclosed for dust free operation.



## Bucket Elevator

Bucket Elevator can carry light to heavy bulk materials vertically. Bucket Elevators are one of the most popular systems in use today for conveying bulk materials. Bucket Elevators typically consist of buckets, a belt that carries the buckets and accessories for loading the buckets and picking the material.



## Deep Bucket Conveyors

TEPL are one of the prominent deep bucket conveyors manufacturers and suppliers from India. The system of deep bucket conveyors uses double strand roller chains which are exclusively meant to tackle hot and abrasive materials. The deep conveyors provided by us consume least power while they lift materials. These are known for their high strength and sturdy built.







# CRUSHER

## Coal Crusher

Our product range includes a wide range of Coal Crusher such as Impactor - Coal Crusher, Hammer Mill - Coal Crusher and Ring Granulator - Coal Crusher.

### Impactor - Coal Crusher

Impactors, adopting a simple rotor, offer a surprisingly high throughput capacity. They also offer a greater flexibility to control the quantity of the feed as well as the quantity of the produce. Tescon engineer's Impactors offer a capacity of up to 300 TPHt. And, they are low in power consumption and maintenance. Impactors from Tescon engineers are ideal for crushing medium hard materials with high moisture content like coal, lignite, coke.



## Roll Crushers

Our standard range includes single roll as well as double roll Crushers. A roll crusher is generally used as secondary or tertiary crusher, gives higher production with lower power requirement and is easier to maintain. The Crushing surface may be smooth, corrugated spiked or toothed. Roll diameter varies from 100mm to 350mm and capacity depends on the width as also the type and configuration of the rolls.



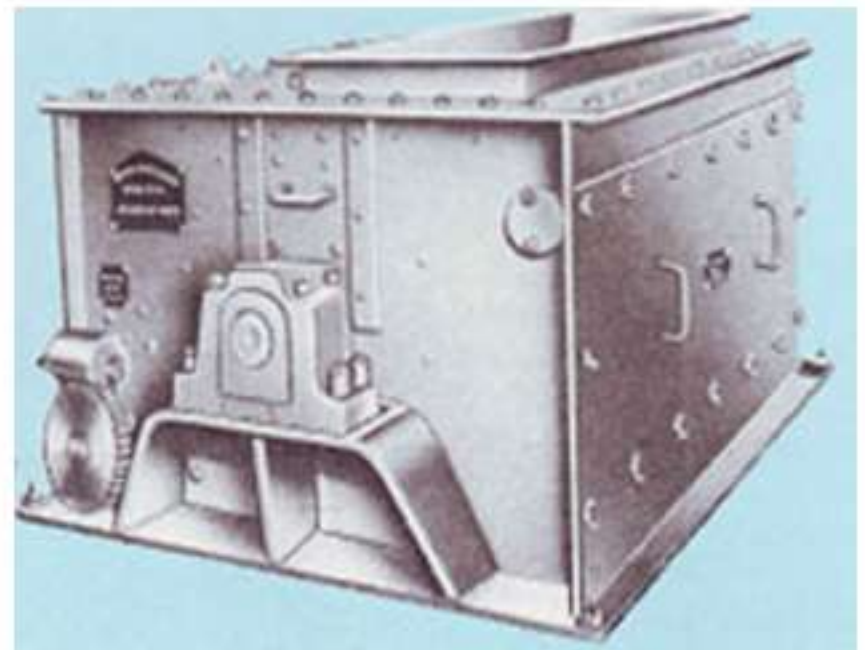
## Jaw Crusher

This is generally used as primary crusher for rock, one lime, gypsum and other hard materials. Opening size range from 225mm \* 100mm to 1000mm \* 700mm.



## Ring Granulator

When it is desired to have a cubical and granular product size with a low percentage of fines, such as for coal a ring granulator is advised. Rotor size is standardized as 600mm with varying face widths to give a crushing capacity of upto 100TPH of coal.







# EQUIPMENTS

## Vibro feeders

Tescon Engineer's Vibratory Feeders, mostly cone shaped, come in many shapes and sizes. They serve the same purpose—to feed bulk material in an uncontrolled fashion and take material out at a controlled, measurable and steady rate..



## Vibrating Screens

TEPL offers Circular motion vibrating screen in single, double and triple version. They can be used for classifying, scalping etc. adjustable center weights. The mounted on alloy steels at running between roller bearings. The bearing are liberally sized and run in dust tight housing with provision for greases lubrication. the screen is generally of floor mounting type but can be manufactured to suit overhead suspension, if required. The screen may be made from punched steel or woven wire cloth. Suitable dust covers and discharge chutes can be supplied to make the operation dust free. To minimize the vibration on the supporting structure, the screen frame is mounted on helical spring. Drive through V.Belts. sizes available vary from 800mm x 1700mm to 1600mm x 4000mm in all three version mentioned above.



## Magnetic Separators

Tescon Engineers Pvt. Ltd. offers electro or permanent magnetic separators which are wide used, for extracting tramp iron from materials being carried on Belt Conveyors. vibrating Feeders and Inclined Chutes to ensure protection of crushers, disintegrators etc. the magnetic length depends on the operation height, burden iron etc.

### Suspension Magnet

A suspension magnet is normally installed over a belt conveyor and can be either electro or permanent magnet. The collect iron can be removed from the magnet surface by periodically moving it away from the conveyor and demagnetizing in case of an electro.



### Over Band Magnetic Separator

Clearing type consisting of a stationary magnet and a heavy duty belt conveyor to facilitate complete discharge of tramp iron. Standard widths are 1000mm and 1200mm.

### Belt Weighers

Tescon Engineers Pvt. Ltd. offers mechanical electronic or nucleonic scales to give indication of the feed rates. Various optional attachments like rate flow meter chart recorder, totaliser, printer etc are available.







# FEEDERS

## Apron Feeders

They can be used to handle stone, gravel, sand, coal and such material. They are recommended for handling material containing large heavy or sharp where material falls from a distance causing impact.

Standard Apron width are 160mm, 200mm, 250mm, 315mm, 400mm, 500mm, 630mm, 800mm, and 1000mm. Various Apron style like A1, A2, B, C, D, E, & F as per IS : 7423:1974 are offered.



## Reciprocating Feeders

Apart from handling lumps, such feeders can also handle fines which do not get packed in the hoppers opening. reciprocating feeders operate horizontally or at slight declination. they are used under track hoppers and used to handle stone, ores, coal and such materials.

Standard feeder widths are 315mm, 400mm, 500mm, 630mm, 800mm, and 1000mm standard



## Screw Feeders

These are short screw conveyors with modified screw flights. they can handle a wide variety of material except those which contain large lumps or highly aerated fines or those which tend to pack. they can be used to control the flow of material at a constant hoppers, bins or tanks.

Standard diameters are 100mm, 125mm, 160mm, 200mm, 250mm, 315mm, 400mm, 500mm, 630mm, 800mm, 1000mm and 1250mm.



## Rotary Table Feeders

These are most useful of handling material which are sluggish or have a tendency to arch. The material to be fed falls over a rotating horizontal plate and the feed rate can be means of an adjustable feed collar. All at power moves the material from the table.

Standard table diameter are 500mm, 630mm, 800mm, 1000mm, 1250mm, 1600mm, and 2000mm.



## Electromagnetic Vibrating Feeders

Such feeders are efficient economical and proved to be simple and easy method of varying the feed rate. They handle most materials hot or cold damp or dry from fine powders to large lumps.

Standard trough widths are 125mm, 160mm, 200, 250mm, 315mm, 400mm, 500mm, 630mm, 800mm, 1000mm, 1250mm and 1600mm, with trough lengths varying from 500mm to 4000 as per IS:8723:1978



## Belt Feeders

They can handle practically any material which is not large too hot or too sticky. Skirt boards are usually provided over the entire length to confine the material and provide necessary depth for desired capacity. Belt speed may be adjustable to offer variable feed rate

Standard belt widths are 400mm, 500mm, 650mm, 800mm, 1000mm, 1400mm, and 1600mm.



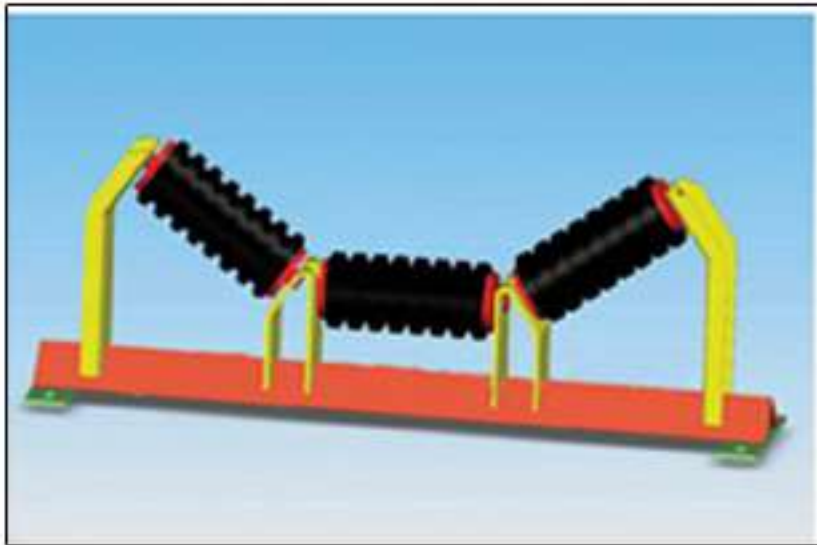




# COMPONENTS

## Impact Idlers

TEPL impact idlers with shock absorbing rubber discs are installed in the loading area, where action of the active material on the belt is more violent. The rubber discs absorb the energy of the falling material and protect the valuable conveyor belt from damage. TEPL impact idlers may also be mounted on the return run in case of belt carrying highly abrasive material.



## Self Aligning Carrying Idlers

Self aligning troughing idlers automatically provide belt laining outboard guide rollers cause the idler to swivel as soon as they contact the belt edge and this swivel action causes the belt to realign automatically. both flat belt rollers and return rollers can also be supplied with a swivel action "training" mounting.



## Steel Carrying Idlers

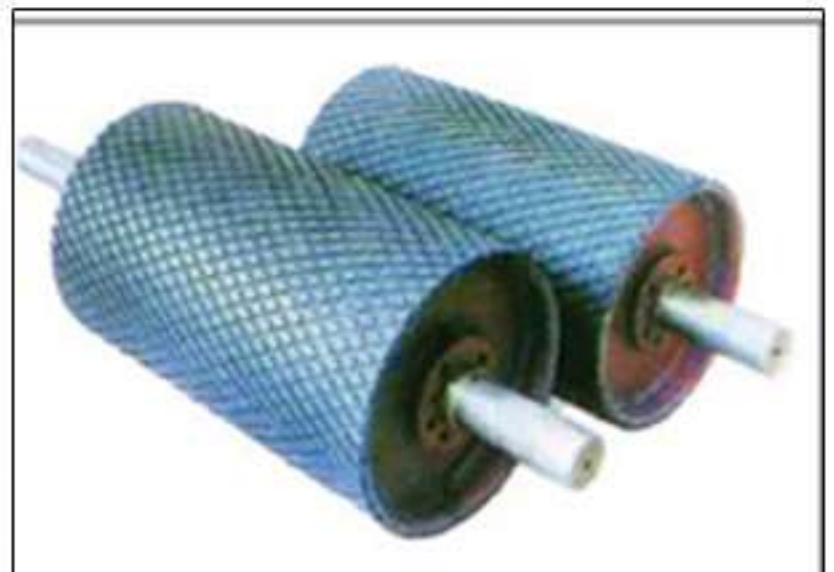
To achieve optimum performance, efficiency and durability of belt conveyor system, TEPL has designed new series of transoms in angle bar to avoid accumulation of mat on the roller. the angle bar transoms and the roller supports combined with TEPL deep in roller series for the steel troughing idler.

TEPL IDLERS are suitable for heavy duty application and are available in different troughing angle.



## Conveyor Pulleys

TEPL are one of the highly sought after belt conveyor pulleys manufacturers in India. Conveyor pulley from our house is called an aesthetic innovation of engineering. These belt conveyor systems are exquisitely designed to bear maximum load that too in a cost effective manner. Our conveyor pulley is widely known for its number of world class features like high tensile strength of the rubber, longevity and many more. Lastly, we provide these unique creations of engineering at the most competitive prices







# ASH HANDLING SYSTEM

## Ash Handling System

(For AFBC/CFBC/WHRB/etc type of Boilers Firing Coal  
Lignite Bagasse /Rice Husk etc.)

### Ash Handling – Mechanical System

Certain application which specially require Mechanical System, like in case of CFBC type at Furnace Bed TEPL provides a drag chain conveyor Sytem followed by pressure Pneumatic Conveyor System as per the application requirement. TEPL Mechanical Sytem are installed for wide range of capacities of power plants.

### Ash handling – Pressure Pneumatic Conveying System

TEPL offers Pressure Pneumatic Conveying System for conveying of bed ash/ coarse ash/fly ash collected at Furnace Bed / Economiser /Air Pre Heater / Electrostatic Precipitator hoppers of AFBC/ CFBC/ WHRB/ etc type boilers firing various fuels like coal/ lignite/ bagasse /rice husk etc.

TEPL, with its patented Dome Valve design and the technology of Dense Phase Pneumatic Conveying, has always kept a brand name for these application by giving practical Solutions to various requirement by arise from time to time, irrespective of batch type / continuous conveying short / longer distances, lower/ higher capacities, temperature range etc. TEPL Pressure Pneumatic Conveying System installing capacity range requires no mention.



### Fly Ash— Disposal System

Fly ash stored in the storage silo utilizes Telescopic chute or Ash conditioner for loading into Bulker / trucks for further transportation.

- ➡ Telescopic chute is used for loading fly ash into closed Bulker/ tanker.
- ➡ Ash Conditioner is used to load conditioned ash into open truck. Capacity of the unloading system depends on the system requirement.







# ASH HANDLING SYSTEM



## Pneumatic Conveying System

Tescon pneumatic conveying systems from the ESP are amazingly simple equipment completely free from complicated linkages and problems. The conveying material moves through an inflatable seal inlet valve, transmitter vessel and pipelines at low velocity in to the silo and air escapes into the atmosphere through the cartridge filter ensuring a clean environment. Through the ash conditioner the material is discharged onto the truck. In you enquiries specify capacities, temperature, density, moisture and distance of travel.

## Semi - Pneumatic Conveying System

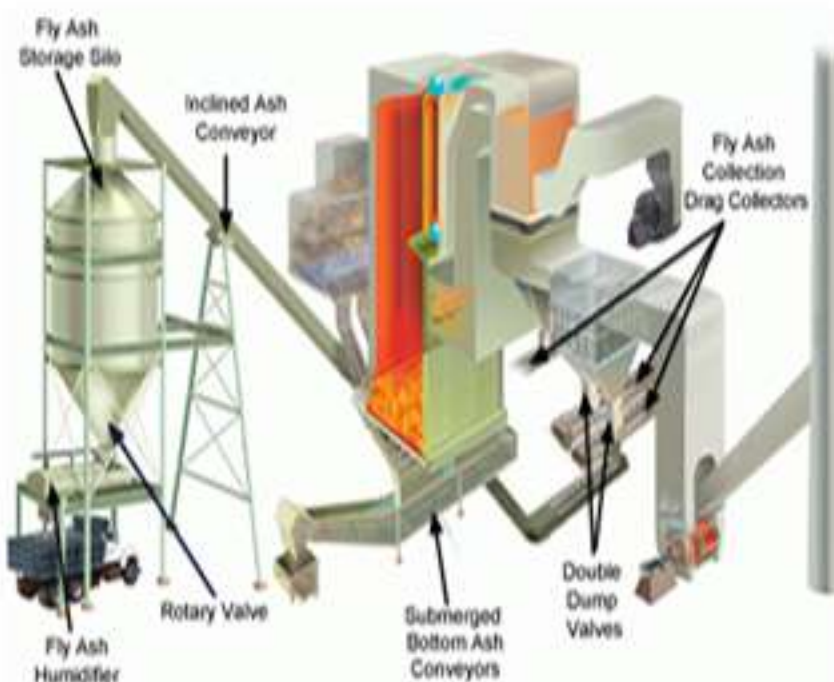
The material moves from the ESP to the silo through an enmasse/screw conveyor, pneumatic transmitter vessel and pipeline. The air escapes into the atmosphere through the cartridge filter ensuring a clean environment. Through the ash conditioner, the material is discharged onto the truck. The system consists of an enmasse conveyor, pneumatic transmitter, silo, cartridge filter, knife gate valve and an ash conditioner. Your enquiries should specify capacities, temperature, density, moisture and distance of travel.

## Pneumatic Conveying System For FBC Boiler

Tescon pneumatic conveying system are designed to handle the ash generated from medium / high pressure FBC boiler's through different outlets. The illustration on the right shows the system conveying ash from the ECO / APH / ESP outlet of the FBC boiler through pneumatic transmitter vessels and pipelines into the common silo. The air escapes into the atmosphere through the cartridge filter. In you enquiries specify capacities, temperature, density, moisture and distance of travel.

## Pneumatic Conveying System For Waste Heat Recovery Boiler

Tescon pneumatic conveying system or Waste Heat Recovery Boiler is designed to handle the highly abrasive dust. Illustration above shows the system conveying dust from ESP field outlets through pneumatic transmitter vessels and pipelines into the common silo. The air escapes into the atmosphere through the cartridge filter ensuring a clean environment. In your enquires specify capacities temperature, density, moisture and distance of travel.







# DUST CONTROL SYSTEM

We provide dust extraction system as per the specific requirements of our esteemed clients. The system is fabricated in compliance with the industry standards of quality, by making use of high grade material. Our range is sought-after by clients, owing to its durability, fine finish, wear & tear resistance and high performance.

## Cartridge Type Dust Extraction

Cartridge Type Dust Extraction Systems are one of the most efficient and cost effective types of dust collectors available today in the market place. Tescon engineers, comprehensive solutions in all aspects of dust collection, separation and filtration.

The Tescon engineers Cartridge Type Dust Extraction System design provides for 20 times the filtration capacity compared to a normal dust extraction. Their slide-in & slide-out design makes it to replace and service cartridges without having to step into the system thereby greatly reducing the downtime.

Tescon engineers uses high quality sealing techniques to ensure no leakages of dust particles.



## Eco Pulse Jet Bag Filters

- Eco Pulse bag filters are top access for service and bag replacement.
- No moving parts in the dirty gas stream.
- Rugged all welded construction.
- Pre-engineered economical design.
- Shop assembled.
- Reliable microprocessor based controller.
- Low initial cost and operating cost.
- Minimum space requirement
- high collection efficiency 99%.
- Low installation time and expenses.
- Wide capacity rang from 500 M3/ Hr to 500000 M3/hr.
- Multiple modular design for high capacity.
- online as well as off line cleaning concept.
- Depending on the application.
- Bags diamater available from 116 mm to 160 mm.
- Specially pad shape bags from insertable bag filters units.
- Simplified bag replacement.
- Dust collection in a dry form.
- Special arrangement possible to collect the dust in wet form.





# DUST CONTROL SYSTEM

## Cyclones & Multicyclones

Tescon offers high efficiency cyclone robust in construction. Whenever procedures allow, using cyclones and multi cyclones is the optimal choice for reducing costs related to the operation and upkeep of your dust collecting and pneumatic conveying systems. The cyclone and the multi cyclone use centrifugal action as the basis of operation. High hardness tube ranging from 300-500 BHM.



## Reverse Air Bag Houses

The Reverse Air Bag House (RABH) is a custom-built filter, designed for cleaning gases with typically high flow rates and high temperatures application upto 260 Deg C. The typical TEPL RABH is modular in construction, with four or more independent modules – the modules being set in pairs, when the gas flows are on the higher side. The sealed air gap between the modules, adds to the insulation to increase operating economy. The extra space created by the hoppers provides a large passageway between rows down the middle of the system. Longer Length (Upto 10000 mm) and Higher diameter (Upto 300) of bags. Bag life is as high as 3 to 5 years.



## Ventury Scrubber System Wet Cyclonic Scrubber

- Standard and custom build design
- Ideal for high temperature applications.
- High and Low energy scrubber to remove fine particulate up to 0.5 Microns.
- Single Ventury designed up to 300000 M3/Hr capacity.
- Specially designed flooded elbow to eliminate chances of abrasion.
- Throat damper selection for fluctuating gas volume and pressure suitable for manual and automatic control.
- Unique nozzle design avoids plugging.
- Wet Cyclonic scrubber are simple in design, construction, operation and easy to install.
- Low pressure drop across the unit, 98% efficient down to 8 micron particle size for dust specific. gravity 1.8, low water consumption.
- Slurry can be recycled.
- No moving parts-hence virtually maintenance free.

## Centrifugal Fans

- Standard and custom built designed available in standard or varying width of the impeller to suit exact duty conditions, optimize.
- Suitable for exact application and duty conditions.
- capacity for up to 300000 m3/Hr and static pressure 800 mm WG.
- Backward curve inclined, non overloading type impeller secondary air conditioning force draft, secondary air and industrial application.
- Designs are also available for High pressure fan, radial tip, Radial blade designs.
- Full range Fan accessories are available.







## **TESCON PROJECT**

**D-480, 2nd FLOOR, PALAM EXTENSION, SECTOR-7  
DWARKA, NEW DELHI - 110075**

**MOBILE NO:- +91 8076503683**

**EMAIL ID: info@tescongroups.com  
tesconengineers@gmail.com**

**FACTORY ADDRESS:**

**PLOT NO. 27/10, INDUSTRIAL AREA, NANGLI SHAKRAWATI  
NAJAFGARH, NEW DELHI-110045**

**[www.tescongroups.com](http://www.tescongroups.com)**