

Environmental Solutions



UK Engineering Projects

Dust / Bag Filters
Fume Control / Scrubbers
Ventilation System
Acoustic Enclosures
Pneumatic Conveying
Rotary Airlock Valve
Centrifugal Fans



Designing as per ACGIH standards

Dust Control

Bag Filters



UK Engineering Projects bag filters are automatic air cleaning system. Pulsing jet of air is used to remove dust from bags supported by metal cages.

Components of pulse jet bag filter are :

- Compressed air source.
- Suction hoods.
- Duct work.
- Dampers.
- Centrifugal fan.
- Pulse jet bag filters.
- Solenoid filters.

Advantages:

- Reliable processing of heavy load of dust.
- Simple bag change possible.
- Dust free area.

Applications:

Cement, foundry, steel, ceramic.



Fume Control

Wet Scrubbers



UK Engineering Projects have an established expertise in wet scrubbers. Scrubbers remove both particles and gases from exhaust stream of many industrial processes.

Polluted gas stream is brought into contact with scrubbing liquid by spraying it with the liquid by forcing it through a pool of liquid to remove the pollutants.

Wet scrubber system generally consist of components :

- Ductwork & fan system.
- Scrubbing vessel.
- Mist eliminator.

- Pumping.
- Spent scrubbing liquid treatment system.
- An exhaust track.

Advantages:

- High removal efficiency.
- Customised design.
- Can be supplied in Steel, FRP, SS.
- Provides gas absorption & dust collection in single unit.

Applications:

Chemical, Coal, Foundries, Steel, Automotive.



Furnace Fume Extraction System



UK Engineering Projects have an established expertise in furnace fume extraction (FES) system. In this system following equipments are involved:

- Swivelling hoods - Manually/ Pn. operated/ Motorised.
- Ductline with water jacketing/ Insulation.
- Spark arrestor.
- . Bag filter with all acccessories.
- Centrifugal fan.
- Exhaust chimney etc.

Advantages:

- Furnace bed area free from hot fumes.
- Hot fume melting shop smoke-free.
- Operator feel more comfort & efficiency increases.



Hazardous Fume Scrubbing System



UK Engineering Projects have an established expertise in Hazardous fume scrubbing system. In this system following equipments are involved:

- PP/FRP/SS hoods & ducting.
- Fume scrubber - vane/ packed/ ventury type.
- Centrifugal fan-PP/ FRP/ SS.
- Scrubber with pumping & dosing tank.

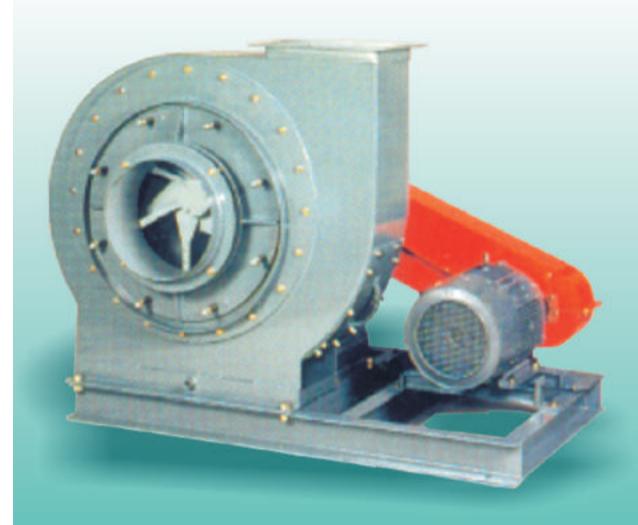
Advantages:

- Acid/ amine/ ammonia/ fumes gets scrubbed & clean air goes to atmosphere.
- Surrounding area is free from hazardous fume.



Rotary Airlock

Blowers



Rotary Air Lock Valve

Rotary Air Lock Valve is a mechanical device for continuously discharging bulk powders or granules under gravity flow. A multi-vane rotor revolving in close contact in the housing. Inlet is at the top of housing and an outlet at the bottom in drop through rotary rotary air locks in convey through material enters at the top & discharges horizontally at 90 degrees.

Advantages:

- Round or square flanges for system compatibility.
- Rugged cast iron construction.
- Application specific options including motor drives & accessories.

Applications:

Food, pharmaceutical, dairy, foundries, paper, rubber & paint.

Blowers

These are mechanical devices for moving air or other gases. These fans increase air stream with rotating impellers. they use kinetic energy of impellers to increase the pressure of air stream which in turn moves them against resistance caused by ducts, dampers.

Advantages:

- Low power consumption.
- High efficiency.
- Customised discharge directions.
- Available in MS/SS/FRP.



Pneumatic Conveying



Dense phase pneumatic conveying

Dense phase means a higher product to gas ratio or a smaller amount of gas is used to move a large quantity of product. The less the gas requirement, power consumption is less by vacuum pump.

Advantages:

- Lower cost system.
- Less dusting or contamination.
- Less temperature problems.
- No moving parts maintenance.

Applications:

Plastics, chemical, food, pharmaceutical, cement & paint.

Lean phase pneumatic conveying

Lean phase conveying system transport powders or granular material over horizontal and vertical distances within a plant with the help of air. Using either positive or negative pressure of air or other gases, the material to be transported is forced through pipes & finally separated from carrier air & deposited at the desired destination.



Ventilation Systems



Process industries such as food, cement, chemical, paper, automotive, research labs face problems with dust, ventilation & filtration. Product quality, environment & employee well-being working in these areas is paramount.

UK Engineering Projects offers a range of solutions from consultancy & design to full

turnkey packages where there is presence of heat, fumes or humidity.

Advantages:

- Design as per ACGIH standard.
- Customized design.
- Increased productivity.
- Increased workers' comfort.



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