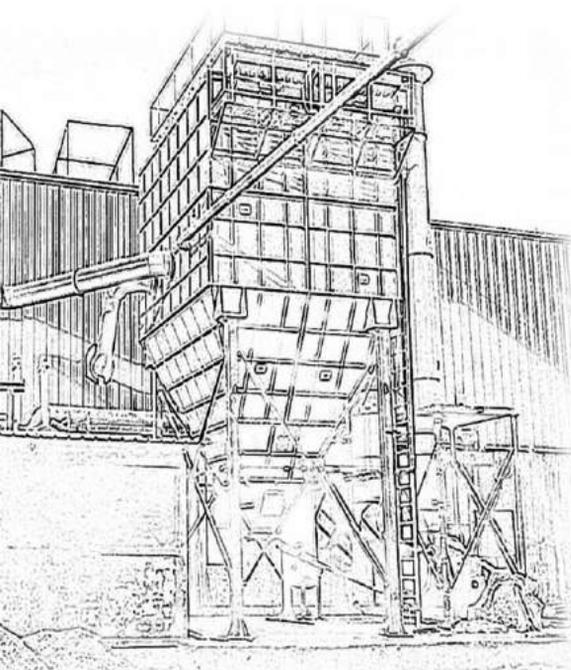


# Healthy Air-vironment Always . . . Anywere!

*Progress Without Pollution*



SINCE 1979....

**TECHFLOW**<sup>®</sup>  
AIR CONTROL TECHNOLOGIES



- TE** AIR POLLUTION CONTROL SYSTEMS
- TE** DE DUSTING SYSTEMS
- TE** CENTRIFUGAL FANS & BLOWERS
- TE** PNEUMATIC CONVEYING SYSTEMS
- TE** COMPONENTS RELATED TO ABOVE SYSTEMS

Protecting Environment & Creating Dust Free Atmosphere.



[www.techflow.net](http://www.techflow.net)

# Healthy Air-vironment Always . . . Anywere!



- Total Premises: 1,50,000 sq. ft.
- Workshop : 70,000 sq. ft.
- Administration Building : 12,000 sq. ft.
- Executions done yearly:
  1. Dust collection systems : 450+ Nos.+
  2. Centrifugal Blowers: 3000 Nos. +
  3. Pneumatic conveying systems : 100 Nos. +...And many more Customized Products & Components.



## ISO 9001: 2015

### COMPANY CERTIFICATION



**TECHFLOW** is a dominant player in the field of AIR POLLUTION CONTROL EQUIPMENTS & SYSTEMS since 1979. The sheer dynamism of the company's strategic vision ensures cost-effective value-added solutions for its customers. The competitive edge gets exhibited through Constant technology upgradation, Innovative Product designing with engineering skills and Proven performance.

**TECHFLOW** is TUV SUD certified ISO 9001: 2015 company. Company having a State-art of-machinery workshop occupying area of 150,000 sq. ft. Company manufactures different types of air pollution control equipments, accessories and turn key systems and provides various solutions for Industrial Air Pollution control, Dust control, Pneumatic conveying etc.

**TECHFLOW** works in close harmony with its customers' requirements and develop quality products for the market needs of today and future. For every product, task or service there is a quality process, ensuring the quality of a final result.



*Winner of*  
**SME CHAMBER OF INDIA  
MANUFACTURING  
EXCELLENCE AWARD - 2012**



**FOUNDRY**



**PARTICLE BOARD PLANT/  
WOOD WORKING &  
LAMINATES**



**SOAP &  
DETERGENT**



**MASTER BATCH  
(PLASTICS)**

**MINERAL  
GRINDING**



**GRAIN AND  
AGRICULTURE**



**SAW PIPE**



**FOOD  
PROCESSING**

**BOILERS**



**CERAMICS &  
VITRIFIED TILES**



**POLISHING &  
GRINDING**



**PHARMACEUTICALS**

**RUBBER / TYRE &  
CARBON BLACK  
PROCESSING**



**SHOT BLASTING  
AND  
SAND BLASTING**



**...AND MANY MORE...**



**WORLD OF AIR MOVING/ CLEANING/ CONTROL  
EQUIPMENTS & SYSTEMS...**

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**WORLD OF AIR MOVING/ CLEANING/ CONTROL  
EQUIPMENTS & SYSTEMS...**

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## CENTRIFUGAL FANS & BLOWERS

- Low Pressure
- Medium Pressure
- High Pressure
- Plug Fans & Blowers.
- Customized / Tailor made Fans.

TECHFLOW has developed a series of fans for almost all the industrial requirements. Centrifugal Blowers designed and supplied by TECHFLOW are highly efficient, proven, reliable & sturdy. TECHFLOW is master in designing and manufacturing customized fans like Multi Vapor Recompression Fan (MVR Fan), Water Jacketed Fan, Special Bearing Cooling Arrangements for High Temperature fans. These are categorized by their pressure generation capacities & Drive types.

Centrifugal Blower can be considered as the heart of any processing industry. It is known as many type like ID Fan, FD Fan, Industrial Blower, Industrial Air Blower, High Pressure Fan, Hot Air Circulation fan, Bag Filter Blower, Dust Collector Blower, Blower, Pneumatic Conveying Fan.

TECHFLOW Supplies following types of Impellers based on application requirement

- Radial Blade / Radial Tipped
- Backward Curved / Backward Inclined
- Airfoil Blades

### LOW PRESSURE CENTRIFUGAL BLOWERS.

#### FEATURES

- Air flow (capacity) Range : 100 CMH to 700000 CMH
- Static Pressure Range : 10 mm WC to 150 mm WC
- RPM Variation : 300 to 2500
- Motor Kw : up to 400
- Material of Construction : Mild Steel, Stainless Steel



**MEDIUM PRESSURE CENTRIFUGAL BLOWERS.****FEATURES**

- Air flow (capacity) Range : 200CMH to 500000 CMH
- Static Pressure Range : 150 mm WC to 600 mm WC
- RPM variation : 700 to 3000
- Motor Kw : up to 600
- Material of Construction : Mild Steel, Stainless Steel

**HIGH PRESSURE CENTRIFUGAL BLOWERS.****FEATURES**

- Air flow (capacity) Range : 100 CMH to 300000 CMH
- Static Pressure Range : 600 mm WC to 1500 mm WC
- RPM variation : 700 to 3000
- Motor Kw : up to 600
- Material of Construction : Mild Steel, Stainless Steel

**PLUG FANS****FEATURES**

Plug fans are the centrifugal blower which generally don't have the housing and is majorly used for hot air circulation, autoclave vessels or in the dust collector where they are fitted directly on the body. This fan is generally designed in accordance to data like operating temperature, circulation required, airflow required, pressure inside the fan chamber and operating density of the media at Inlet.



**CUSTOMIZED / TAILOR MADE FANS**

There are many processes where operating conditions are not suitable for standard duty fans or simple fans. TECHFLOW has state of the art techniques to design customized blowers for the processes with operating challenges like high temperature, high abrasion, low density, high speed, zero leakage and other.

**Gas Tight / MVR Fan****Water Cooled Bearing Housing****Blower with Double Drive**

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Centrifugal Fans & Blowers















## CYCLONES

### Types of Cyclones

- Single / Mono Cyclone
- Twin Cyclones (In Series or Parallel as per application Requirement)

Cyclone is the basic & most conventional way to separate the heavy dust particles from the air stream using centrifugal cyclonic/vortex effect due to tangential rotation. This can be used where particle size of the dust is heavy, as primary separator to reduce the dust load on the fabric filter or dust collector & as spark trapper in some application.

TECHFLOW has developed a series of cyclones where you can get maximum efficiency of dust separation with lower power consumption. This has resulted in better outlet emission, lesser load on bag filter or dust collector, improving life of filter bags and better recovery of product.

### FEATURES

- No Moving or Rotating Parts so minimal Maintenance.
- High Separation Efficiency with Special Inlet Design.
- Application Based Designs for Better Performance.
- Small footprint hence requires lesser floor space.
- Separation Efficiency possible upto 98% for Powders.

### OPTIONS

- Single / Mono Cyclone.
- Twin Cyclones (In Series or Parallel as per application Requirement)
- Quad/ Hexa or Octa & Modular Cyclones.

### APPLICATION / USES

- |                           |                                  |
|---------------------------|----------------------------------|
| ■ Particle Board Plants   | ■ Abrasive Media Manufacturing   |
| ■ Guar gum Processing     | ■ Kiln Exhaust                   |
| ■ Boiler Flue Gas         | ■ Pneumatic Conveying System     |
| ■ Primary Separator for   | ■ Sander Dust Collector          |
| ■ Dust Collector          | ■ Mineral Grinding               |
| ■ Spark Trapper           | ■ Furnace Fume Extraction System |
| ■ Fly Ash Handling Plants | ■ Product Collection             |
| ■ Polishing Machines      | ■ Carbon black Industry          |
| ■ Buffing Machines        | ■ Rubber Processing              |
| ■ Cement Plants           | ■ Food Processing Plants         |
| ■ CNC Machine             | ■ Master Batch Industry          |
| ■ Shot Blasting           | ■ Plastic Pellet Conveying       |
| ■ Sand Blasting           | ■ Wooden Pellet Conveying        |
| ■ Dryer Exhaust           | ■ Wood Chip Conveying            |



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## Mechanical Dust Collectors







## MULTICLONES

Multiclone is second generation mechanical dust collector after cyclone. It is having multiple parallel cyclonic tubes inside the chamber which separate the heavy dust particles from the air stream. This is used as primary separator to reduce the dust load on the bag filter or dust collector & also serves as primary spark trapper in some applications.

TECHFLOW has developed Multiclones with many types of cyclonic tubes for different applications. Heart of any Multiclone is the cyclone tube and design of the tubes differ from application to application.

### FEATURES

- No Moving or Rotating Parts so No Maintenance.
- Different Tube Design For Different Applications.
- Wide Experience in Product Selection.
- Replaceable Fabricated/Cast Alloy Tubes to form Multiclone.
- Low Operating Pressure Drops.

### APPLICATION / USES

- Particle Board Plants.
- Boiler Flue Gas.
- Primary Separator for Dust Collector.
- Spark Trapper.
- Fly Ash Handling Plants.
- Cement Plants.
- Dryer Exhaust.
- Furnace Fume Extraction System.





## PULSE JET CARTRIDGE TYPE FILTER : C-TPJF

TECHFLO is the Pioneer designer/ manufacturer in India, who has designed, manufactured & supplied Cartridge Type (Pleated Bag) Dust Collectors way back in 1980s. The Idea behind designing the Cartridge Type Filter was to save space and giving comparable result as a hose bag type filter. Cartridge type Pulse Jet Dust Collectors are basically used for applications with ambient temperature range and free flowing dust or materials. There are various filtration media available for different applications. These low height Dust Collectors are designed to operate continuously and with lowest down time. The timed pulses of compressed air travel in opposite direction of main air flow & by temporary reversal thro' cleaning blast via ventury, cartridge surface is cleaned.

TECHFLO offers a wide range of Cartridge Type Pulse Jet Dust Collectors Starting from 1000 to 100,000 CuM/Hr.

### FEATURES

- Low height front loading of cartridge removal & insertion.
- Continuous Duty Operation.
- Lower Pressure Drop In Comparison with Hose Bag Type Bag Filters.
- Modular Design starting from 1000 to 1,00,000 CuM/Hr
- Supplied in Ready to start conditions.
- Space Savings

### OPTIONS

- Customized / Standard
- Surface filtration technology.
- Options For Discharge Devices.
- Variety of Fabrics suitable for various applications

### APPLICATION / USES

- |                        |                                |
|------------------------|--------------------------------|
| ■ Sand Blasting        | ■ Spices                       |
| ■ Shot Blasting        | ■ Pneumatic conveying systems  |
| ■ Mineral Grinding     | ■ Powder coating               |
| ■ Pigments & Chemicals | ■ Engineering workshops        |
| ■ Polymers             | ■ Welding & Cutting            |
| ■ Ceramics             | ■ Cattle Feed & Grain Handling |
| ■ Grinding & Polishing |                                |
| ■ Abrasive Mfg.        |                                |
| ■ Food Processing      |                                |















## PULSE JET HOSE BAG TYPE FILTER : B-TPJF

Pulse Jet Hose Bag Type Filters are known as conventional filters. TECHFLOW has developed new age designs for this filters which gives better life of filter bags, Lower emission levels, Lower Pressure drops, lower power consumption, Higher air to Cloth Ratios with better performance levels, Lower Floor Space Requirement. TECHFLOW supplies customized bag filters on the bases of application requirement. These Pulse Jet Bag Filters are used where air-flows are in large quantity, temperatures are higher than ambient or material to be handled is difficult.

### FEATURES

- Modular Designs Available starting from 1600 m<sup>3</sup>/hr to 4,00,000 m<sup>3</sup>/hr.
- Tool less installation/replacement of bag & Cages.
- Variety of Filter media available for different applications.
- Can handle up to 300°C hot gas.
- Easy to Install & Commission.

### OPTIONS

- Customized.
- Pre Cooler for Gas.
- Spark Arrestor for Certain Applications.
- Options For Discharge Devices.
- Surface Filtration Technology.

### APPLICATION / USES

- Foundry & Steel
- Cement
- Boilers Flue Gas
- Kiln Exhaust
- Solids Drying
- Mining and Minerals
- Glass
- Particle Board Mfg.
- Wood-working and laminates
- Air Pollution Control Systems
- Hot Gases and Fumes
- Coal Handling



























## PULSE JET ENVELOPE TYPE FILTER : E-TPJF

This is a special variant of horizontally mounted filter bag envelopes (pockets) over retaining metal cages. The advantage is low height & easy access to filter bags for maintenance & replacement.

These are offered where there is a height constraint or front loading of filter elements are required.

### FEATURES

- Downdraft Airflow Direction for Best Dust Separation At Inlet
- Reliable & Efficient for critical Powder/Dust
- Best For Product Recovery
- Continuous Duty Operation
- Lower Pressure Drop In Comparison with Hose Bag Type Bag Filters
- Modular Design starting from 2000 m<sup>3</sup>/hr to 1,00,000 m<sup>3</sup>/hr

### OPTIONS

- Customized / Standard Solutions.
- Options For Discharge Devices.

### APPLICATION / USES

- Rubber Processing
- Masterbatch and Pigments
- Powder recovery
- Metal Recovery
- Food Processing
- Foundry & Steel



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Dust Collectors / Bag Filters / De-Dusting Systems/  
Air Pollution Control Systems





## MOTORIZED SHAKER DUST COLLECTOR : T-MOS

T-MOS dust collector from TECHFLOW is designed for heavier dust particles (Wood, Granule, Metal Dust). T-MOS is equipped with very sturdy shaking motor for automatic cleaning of filter bags along with speed controller for shaking motor. This motorized dust collectors are designed to give long and trouble free operation. The available range of T-MOS can cater almost all dry dust collection applications.

### APPLICATION / USES

- Drilling
- Abrasive Blast
- Food Packing
- Mixing
- Transfer Points
- Polishing
- Grinding
- Cutting
- Shot Blasting

### FEATURES

- Sturdy Construction.
- Compact Design.
- Can Be Used In Wide Range Of Industry.
- Shipped In Plug & Play Condition.
- Ease of Maintenance.
- No Compressed Air Required.
- Silent But Efficient Operation.

### OPTIONS

- Material of Construction : Mild Steel / Stainless Steel







## VENT FILTER : TUFF - VENT

Vent Filters are available in following options

- Vent Filter Directly Mounted on the Silo.
- Vent Filter With Hopper Mounted on Floor.
- Type of filters : Hose Bag / Pleated Cartridge.
- Cleaning of the filters is done thru reverse air pulse jet system.
- Motorized shaking system is also available for cleaning of filters.
- Available Material of Constructions : Mild Steel / Stainless Steel.

Vent Filters by TECHFLOW is the series of dust collectors which are used to vent clean air from the silo / hopper where material is pneumatically conveyed and stored. A wide range of selection is available for vent filters at TECHFLOW with variety of options.

### FEATURES

- Compact Design
- Maintenance Free
- Sturdy Construction
- Available In Various Constructions
- Can be Flanged to Silo or bottom hopper.

### APPLICATION / USES

- |                   |                     |                  |
|-------------------|---------------------|------------------|
| ■ Cement          | ■ Bauxite           | ■ Kaolin Clay    |
| ■ Mineral         | ■ Bentonite         | ■ Lime           |
| ■ Food Processing | ■ Borex             | ■ Milk Powder    |
| ■ Foundry         | ■ Calcium Carbonate | ■ PVC Resin      |
| ■ Glass           | ■ Feld Spar         | ■ Quartz         |
| ■ Grain           | ■ Fine Coal         | ■ Silica Sand    |
| ■ Agriculture     | ■ Flour             | ■ Soda Ash       |
| ■ Cattle Feed     | ■ Fluorspar         | ■ Sodium Sulfate |
| ■ Mining          | ■ Fly Ash           | ■ Sugar          |
| ■ Alumina         | ■ Gypsum            | ■ Talc           |
| ■ Ball Clay       | ■ Iron oxide        |                  |
| ■ Barite          |                     |                  |



## VENT FILTER : TUFF - VENT





## REVERSE AIR CLEANED ENVELOPE TYPE FILTER : T-RABF

### FEATURES

- Heavy gauge fully welded steel construction.
- Compact modular design minimises space requirement.
- Weather proof for exposed locations.
- Filter area up to 2500m<sup>2</sup> in single housing.
- High efficiency off-line cleaning during continuous operation.
- Lower pressure cleaning & hence lower emissions.
- Wide range of filter media for special applications.
- Easy access for maintenance from front mounted clean gas chamber.
- Operating temperature up to 180 °C.
- No compressed air required.

### OPTIONS

- Discharge options include screw conveyors, rotary valves, gravity or motorised flap valves or bin
- Customized dirty gas inlet hoods
- Air blast coolers for higher temperature applications
- Pre-separators, skimmers and cyclones
- Access platforms

### INTEGRATED CONTROL PANEL WITH MIMIC



### APPLICATION / USES

- Aluminium production.
- Asphalt production.
- Ferrous and non-ferrous foundries.
- Mineral grinding.



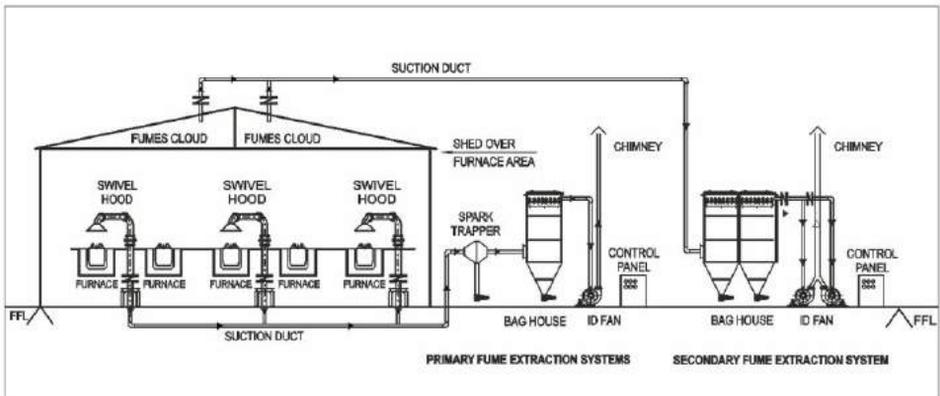




## FUME EXTRACTION & FILTRATION SYSTEM

- Furnace Fume Extraction Systems
- Welding Fume Extraction Systems

### SCHEMATICS : FURNACE FUME EXTRACTION SYSTEMS



Many Industrial operations generate fumes during various processes like Furnace, Welding, Brazing, Cutting etc. These fumes are not only hazardous for Atmosphere but also harmful to Human life.

The workers / employees find it uncomfortable to work in the polluted environment and as a result affects their output and efficiency.

### APPLICATION / USES

- Induction Furnace - Ferrous/ Non Ferrous
- Aluminum/ Zinc/ Copper Melting Furnace
- AOD Furnace
- Electric Arc Furnace
- Exothermic Reaction Furnace
- Ladle Refining Furnace



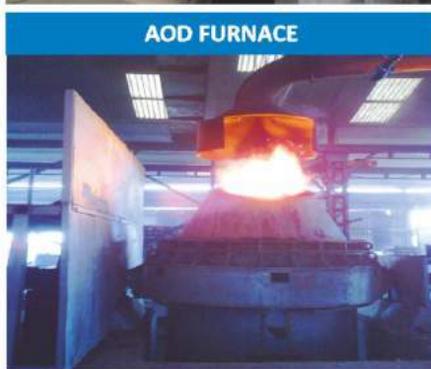




INDUCTION FURNACE- NON FERROUS



AOD FURNACE

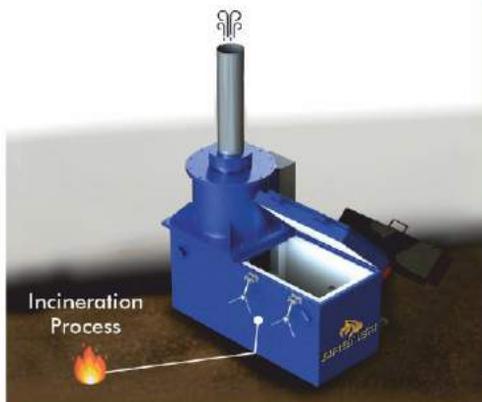


EXOTHERMIC REACTION FURNACE

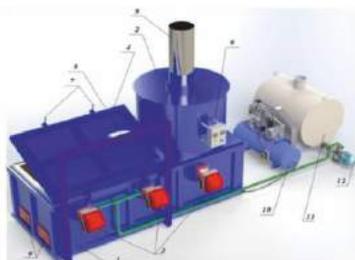








## Waste Disposal / Incinerator



- 1 - Primary (Combustion) Chamber
- 2 - Secondary (After Burning) Chamber
- 3 - Burners Of The Chambers
- 4 - Lid Of The Loading Hatch
- 5 - Chimney Stack
- 6 - Automated Control Panel

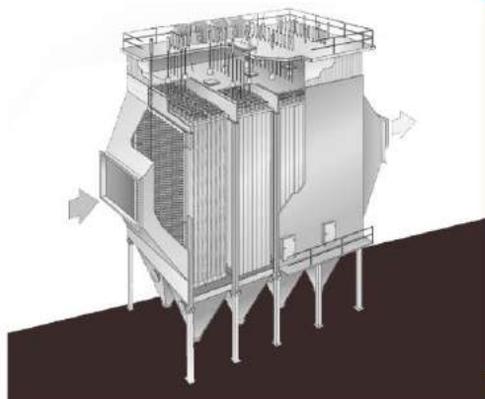
- 7 - Clamps Of The Cover
- 8 - Electrical Winch
- 9 - Ash Doors
- 10 - Compressor
- 11 - Tank For Liquid Waste
- 12 - Pump



## USES

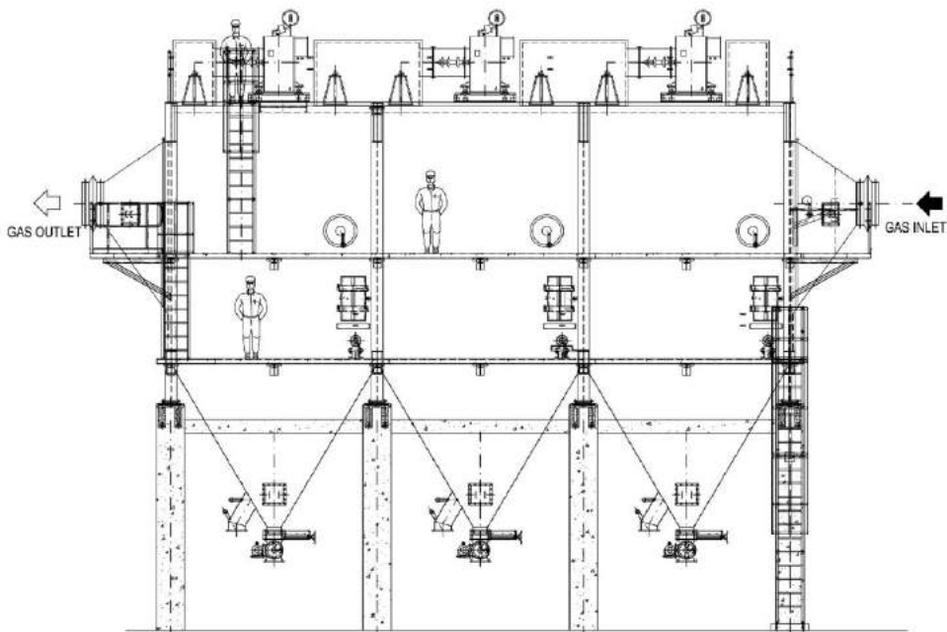
- Biological Waste (for Example: Animal/birds Carcasses)
- Medical Waste
- Wood Waste
- Oil And Gas Industry Waste Applications
- Oily Sludge (Filters & Rags)
- Municipal Solid Waste (Household Waste)
- Refugee Camp Waste
- Industrial Waste Applications (Including Rdf)
- Plastics & Other Waste Allowed For Incineration





## E.S.P

Electrostatic Precipitator



### FEATURES

- Continuous Duty Operation.
- Lower Pressure Drop
- Modular Design upto 1000 to 1,00,000 CUM/Hr
- Space Savings
- Customized / Standard

**WORK STATION WITH DUST COLLECTOR**

- Single Station Filter Cleaning Unit With Pulse Jet Dust Collector
- Double Station Filter Cleaning Unit With Pulse Jet Dust Collector

**PANEL FILTER CLEANING STATION WITH DUST COLLECTOR**

TECHFLOW has developed a special work station to clean the panel type HDP or other filters. This station is equipped with all required accessories like filter cleaning gun for compressed air, transparent top cover with accessible cut outs for cleaning windows, suction hood with arrangement of dirty panel filter placement, automatic control panel, HEPA filter at outlet of blower for pharmaceutical filter cleaning application.

**FEATURES**

- Rigid Construction & Sturdy Design
- Easy To use & User Friendly
- Integrated Control Panel For Operation
- Customized Stations Available
- Dispatched in Plug & Play Condition

**APPLICATION / USES**

- Pharmaceutical
- HVAC





## DOWN DRAFT WORK BENCH WITH DUST COLLECTOR

- Single Work Bench With Integral Dust Collector
- Multiple Benches Connected to Single Dust Collector

**TECHFLOW** has developed down draft & side draft work benches for majority air borne dust capturing purpose. These benches are widely used for applications like grinding of small articles, painting of small articles, welding, buffing, polishing, Sand Blasting, Shot Blasting, Gritting, Fur Cleaning, abrasive blasting and other application where dusting takes place due to manual operation on article. This work benches are equipped with drawers and cupboards to keep the day to day tools and records safe from operation.

### APPLICATION / USES

- Grinding of Small Articles
- Sand Blasting
- Welding
- Painting of Small Articles
- Abrasive Blasting
- Shot Blasting
- Buffing
- Gritting
- Polishing
- Fur Cleaning

### FEATURES

- Rigid Construction & Sturdy Design.
- Easy To use & User Friendly.
- Customized Designs Available on Request.
- Dispatched in Plug & Play Condition.



## GRINDING & FETTLING BOOTH WITH DUST COLLECTOR

In steel & Foundry plants various castings are required to be ground & polished in a fettling shop. Tremendous amount of sparking dust becomes air borne during this grinding operation. These grinders can be mounted on pedestals or handheld swing frame grinders.

**TECHFLOW** has designed various systems for capturing & collecting dust particles arising out of this grinding operations. Specially designed enclosure booths are supplied to enclose most part of the source. Dust travels to the back wall of the enclosure, where louvered baffles are kept for breaking the velocity & deflecting it downwards. Powerful dust collectors are attached to the back wall louvered frame for providing extraction thro' booth inside.



**TECHFLOW** supplies customized work booth with Integrated Dust Collector and Suction Blower.



## PNEUMATIC CONVEYING SYSTEMS

- Dense Phase Pneumatic Conveying ( Weight Based / Volume Based )
- Lean Phase Pneumatic Conveying

TECHFLOW is one of the established manufacturer of Dense Phase Conveying Systems. This systems are also known as Pneumatic transporters, material transporter, Foundry Sand Transporter. This system is used to convey the material from source to multiple or single destination with the help of compressed air.

### FEATURES / BENEFITS OF DENSE PHASE PNEUMATIC CONVEYING SYSTEM

- Facilitate transfer the solid from Single/ Multiple Feeding Points to very long distances & multiple locations.
- Robust , User friendly , low maintenance , Ready to start system.
- Closed loop system- thus eliminating dusting.
- Higher conveying distances are possible as compared to Mechanical transfer.
- Very small installation space / Foot print is required to install the vessel.
- Suitable even in complex plant layouts.
- Less breakdown incidences & single point Maintenance plus low wear & tear of the conveying parts.
- Elimination of Major Civil works/Foundations etc.
- No need of any Dust collection systems.
- Low Installation Cost.
- Same requirement of Power/Operating cost as compared to other means of Transfers.
- Low conveying velocities in the pipe line- thus less wear & tear problems.
- Small sized vent filters due to low amount of airflow involved as compared to lean phase systems.

### APPLICATION / USES

- |                      |                              |
|----------------------|------------------------------|
| ■ Alumina            | ■ Lime                       |
| ■ Ash                | ■ Perlite                    |
| ■ Bag House Dust     | ■ Salt                       |
| ■ Barlite            | ■ Sand                       |
| ■ Bentonite          | ■ Soda Ash                   |
| ■ Carbon Black       | ■ Food Powder                |
| ■ Cement             | ■ Foundry Minerals           |
| ■ Clay               | ■ Power                      |
| ■ Calcium Carbonate  | ■ Foundry Sand               |
| ■ Cornstarch         | ■ Manganese Oxides           |
| ■ Cement Clinker     | ■ Silica                     |
| ■ Diatomaceous Earth | ■ Pneumatic Conveying System |
| ■ Fluorspar          | ■ Powder Handling System     |
| ■ Gypsum             |                              |









TECHFLOW is one of the leading Designer & manufacturer of Pneumatic Conveying System. In this system material is conveyed with the help Centrifugal Blower/Roots Blower/Regenerative Blower. Here material is conveyed either by negative suction or by positive pressure of blower.

## PROCESS FLOW DIAGRAM / OPERATION PRINCIPLE



### TYPE OF LEAN PHASE SYSTEMS

- Vacuum Conveying (Negative Conveying)
- Pressure Conveying (Positive Conveying)

### FEATURES / BENEFITS OF LEAN PHASE CONVEYING SYSTEM

- Closed loop system- thus eliminating dusting
- Higher conveying distances are possible as compared to Mechanical transfer.
- Very small installation space/Foot print is required to install the vessel.
- Suitable for complex plant layouts and for less fluidizable material.
- Less breakdown incidences & single point Maintenance.
- Elimination of Major Civil works/Foundations etc.
- Ready to start systems- No Alignment/trials required.
- Single point utilities (Air, Electricals) connection.
- Suitable for long distances & multiple locations.
- Robust systems, User friendly & with low maintenance demand.
- Online transfer system – No requirement of storage hopper for transfer.

### APPLICATION / USES

- |                      |                              |
|----------------------|------------------------------|
| ■ Alumina            | ■ PVC Resin                  |
| ■ Bag House Dust     | ■ Salt                       |
| ■ Barlite            | ■ Soda Ash                   |
| ■ Bentonite          | ■ Soap Powder                |
| ■ Carbon Black       | ■ Talc                       |
| ■ Cement             | ■ Food Powder                |
| ■ Clay               | ■ Master batch               |
| ■ Calcium Carbonate  | ■ Power                      |
| ■ Cornstarch         | ■ Plastic                    |
| ■ Cement Clinker     | ■ Soap & Detergent           |
| ■ Diatomaceous Earth | ■ Manganese Oxides           |
| ■ Flour              | ■ Silica                     |
| ■ Fluorspar          | ■ Wood Bagasse               |
| ■ Gypsum             | ■ Pneumatic Conveying System |
| ■ Lime               | ■ Powder Handling System     |
| ■ Perlite            |                              |

### COMPONENTS FOR DANCE PHASE / LEAN PHASE PNEUMATIC SYSTEMS AVAILABLE ON REQUEST

- |   |  |
|---|--|
| ■ Pneumatic Line Diverter.                                    | ■ Rotary Airlock Valves / Rotary Airlock Feeders.  |
| ■ Wear Resistant Bends / Long Radius Bend.                    | ■ Regenerative Blowers / Turbine Blowers / Roots Blower / Centrifugal Blower.                                |
| ■ Feed Hoppers With Vibro Motors & Pneumatic Piston Vibrator. | ■ Dome Valve. (Dance Phase)  |
| ■ Aeration Pad for Hopper Discharge.                          | ■ Anti Plug Line Vales / Booster Valves. (Dance Phase)   |
| ■ Control Panel Modules With MIMIC & Programming.             | ■ Pick Up Tee For Rotary Airlock Valves / Pick Up Nozzles / vacuum Nozzles for Truck unloading. (Lean Phase) |
| ■ Vent Filters For Discharge Lines & Silo.                    |  |





## VENTURI SCRUBBER : TWS

The design of the Techflow Venturi Scrubber consists of a "wet approach" venturi followed by a liquid entrainment separator. Dust laden gases enter the venturi and instantly make contact with the tangentially introduced scrubbing liquid swirling down the venturi's converging walls. At the venturi throat, the gas and liquid streams collide and the liquid breaks down into droplets which trap dust particles.

- This gas/liquid mixture passes through a flooded elbow, and then enters the entrainment separator through a tangential inlet.
- Centrifugal action removes the heavy wetted particles from the gas stream.
- As an alternate, when very large diameter separators are required, the liquid is separated by passing the stream through a mist eliminator baffle.
- The dust/liquid mixture is discharged from the separator bottom drain and the cleaned gas leaves through the top of the separator.



### FEATURES

- Efficient
- Low maintenance
- Low water usage

### APPLICATION / USES

- Boiler Flue Gas
- Kiln Exhaust
- Dryer Exhaust
- Rubber Grinding
- Aluminium Production
- Specific Engineering Applications







**FLUX FEEDING & RECOVERY SYSTEM  
WITH HEATERS & FLUX (RECOVERED/FRESH)  
CONDITIONING UNITS  
(PATENTED TECHNOLOGY (276904))**

- Portable Flux Feeding (Gravity Type) & Recovery Systems
- Semi Auto Systems (Flux Feeding, Recovery & Conditioning Unit)
- Complete Automatic Systems (Flux Feeding, Recovery, Conditioning & Heating)

TECHFLOW is one of the founder designer & manufacturer for all types of Flux Feeding, Flux Recovery, Flux Heating, Flux Screening, Flux Conditioning equipments. TECHFLOW supplies these equipments in various combination with complete automation for operations as per the requirement of client.

**TECHFLOW Manufactures following models as per requirement**

**Fine Baking & Soaking System**



**Flux Heating & Conveying**



**Flux Heating + Weighing Module**



**Complete Auto Mode Operation System ( Flux Feeding, Recovery, Heating, Weighing & Conditioning Unit)**









## AXIAL FANS : TUFF - AIRE

- Cooling Axial Fan (Standing, Wall Bracket mounting, Pedestal)
- Tube Axial Fan (Standing, Wall Mounting)
- Bifurcated Axial Fan (Standing, Wall Mounting)
- Customized Axial Fan (Couple Driven, V-Belt Driven)
- Axial Fan With Water Spraying Arrangement

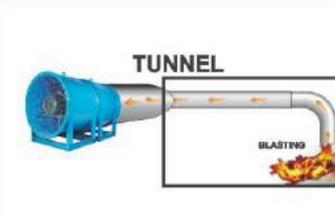
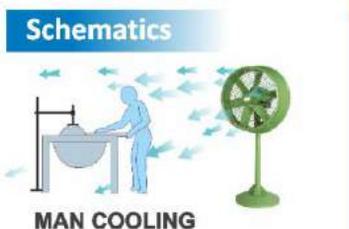
TECHFLOW is one of the leading manufacturer of axial type of fans in INDIA. TECHFLOW Axial fans are generally used for creating shop floor's environment better for workers. TECHFLOW Axial fans can be used as either cooling fan or as ventilation fan. TECHFLOW has large range of Axial Fans starting from 0.5 HP (3800 m<sup>3</sup>/hr) to 30 HP (95000 m<sup>3</sup>/hr). And customized fans are also available on request with larger airflow and special application.

### FEATURES

- Economical
- High Airflow
- Compact Design
- Long Life
- Selection Expertise
- Dispatched in Plug & Play Condition

### APPLICATION / USES

- |   |                         |                                |
|---|-------------------------|--------------------------------|
| ■ Man Cooling   | ■ Furnaces              | ■ Mines                        |
| ■ Casting Cooling                                       | ■ Glass melting shops   | ■ Tunnel ventilation & exhaust |
| ■ Hot Air/ Fumes/Steam Exhaust                          | ■ Ceramic units         | ■ Metal mfg. plants            |
| ■ Tunnel Ventilation.                                   | ■ Iron & steel plant    | ■ Rolling mills                |
| ■ Blast ventilation/ exhaust                            | ■ Power plants          | ■ Boiler houses                |
| ■ Comfort for workmen in hot working zones of Foundries | ■ Cement industries     | ■ Fabrication                  |
| ■ Large Kitchen Exhaust                                 | ■ Chemical factories    | ■ Assembly shops etc.          |
|   | ■ Plastics molding unit |                                |



Large/Medium fabrication shops, Rolling Mills, Steel Plants, Foundries any other Large / Medium scale unit, heat generation industry.

### Performance Parameters - STANDARD MODELS

MODEL	SIZE		Speed RPM	Capacity FAD m3/hr	Electric Motor	
	inch	mm			KW	HP
TAF/18	18	450	1440	7000	0.37	0.5
TAF/24	24	600	1440	12000	0.75	1
TAF/30	30	750	1440	21000	1.5	2
TAF/30/S	30	750	1440	30000	2.2	3
TAF/36	36	900	1440	40000	3.7	5
TAF/36/S	36	900	960	32000	2.2	3
TAF/40*	40	1000	1440	54000	11	15
TAF/40/S	40	1000	960	44000	5.5	7.5
TAF/44*	44	1100	1440	74000	15	20
TAF/44/S	44	1100	960	48000	7.5	10
TAF/48*	48	1200	1440	85000	18.5	25
TAF/48/S	48	1200	960	50000	7.5	10

### FAN TYPES & MOUNTINGS



MAN COOLER  
(PEDESTAL TYPE)



MAN COOLER  
(WALL MOUNTED)



IN LINE  
TUBE AXIAL



FIX TYPE  
(GROUND MOUNTED)



PRODUCT COOLING



SWIVEL TYPE  
(GROUND MOUNTED)



ROOF EXHAUST



BIFURCATED FAN  
FOR  
STEAM / MOISTURE



V-BELT DRIVE  
FOR DUST /  
TEMP. DUTY



BOOSTERS  
(HIGH PRESSURE)



## ROTO - TUFF ROTARY AIR LOCK VALVES

SIZES: (MM) 150, 200, 250, 300, 350, 400, 450

1. Drop Thru Type  
(For Dust Collection, Material Transfer Duty)
2. Quick Clean Type  
(For Food Grade, Hygroscopic Materials)
3. Blow Thru Type  
(For Pneumatic Conveying Application)
4. Side Entry (Special Purpose Application)

For Dry Solids, Powders, Granules, Pellets & Chips...Virtually for any Application.

### FEATURES

- Heavy Duty
- Rugged & Compact Design, Almost For Any Application
- Works Up To 300 Deg C
- Outboard Bearing For Longer & Trouble Free Life
- Available in Both Direct & Chain Drive
- Application Expertise
- Selection Expertise

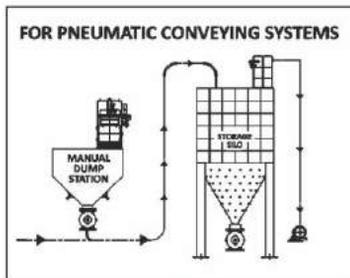
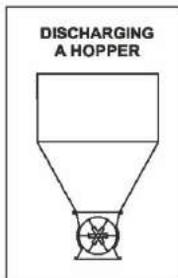
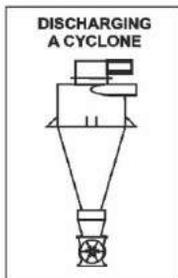
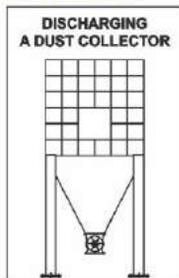
### OPTIONS

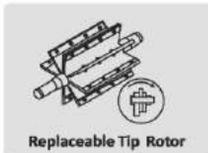
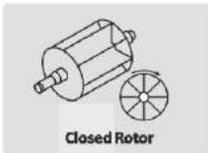
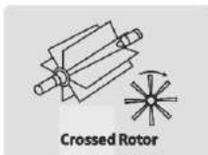
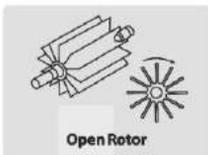
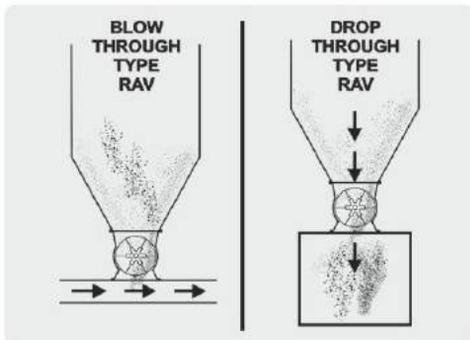
- Options Available for : Granule / Wood Chips / Pellet Handling
- Types of Rotor : Closed Rotor / Open Rotor / Helical Rotor / Rotor With Adjustable Tip
- Available Material of Constructions : Mild Steel / CI / Stainless Steel

### APPLICATIONS / USES

- |                      |                    |
|----------------------|--------------------|
| ■ Alumina            | ■ Gypsum           |
| ■ Ash                | ■ Lime             |
| ■ Bag House Dust     | ■ Perlite          |
| ■ Barlite            | ■ PVC Resin        |
| ■ Bentonite          | ■ Salt             |
| ■ Carbon Black       | ■ Sand             |
| ■ Cement             | ■ Soda Ash         |
| ■ Clay               | ■ Soap & Detergent |
| ■ Calcium Carbonate  | ■ Talc             |
| ■ Cornstarch         | ■ Food Powder      |
| ■ Cement Clinker     | ■ Master batch     |
| ■ Diatomaceous Earth | ■ Foundry          |
| ■ Flyash             | ■ Power            |
| ■ Flour              | ■ Plastic          |
| ■ Fluorspar          |                    |

### SCHEMATICS



**TYPES OF ROTOR****OPERATING PRINCIPLES**
**OPERATING PRINCIPLE  
FOR QUICK CLEAN  
TYPE RAV**
**Optional Accessories & Technical Details**

- Pick up Tee.
- Zero speed switch.
- Control panels.
- Sight glass for top or bottom.
- Protection screens at bottom or top.
- Customized entry piece.
- Empty bins or hoppers.
- Lump Breakers.



## DOME VALVES - DOME-TUFF

**SIZES : DN 50, 80, 100, 150, 200, 300, 400**

Dome Tuff from Techflow is an isolation valve used in many application where conventional valves like ball valve, butterfly valve and slide gate valves fails to operate. Dome valves are available in various sizes & types. This can also be customized upon request in case of critical material handling.

### FEATURES

- Dispatched in Plug & Play Condition.
- Rigid Construction.
- Able To Handle Highly Abrasive Material.
- Inflatable Seal for Zero Leakage.
- Works Up to 250° C.
- Highly Reliable Against Conventional Valves.
- Available in various sizes.

### APPLICATION / USES

- |                                   |                             |
|-----------------------------------|-----------------------------|
| ■ Isolation Valve                 | ■ Centrifuge Discharge      |
| ■ Dense Phase Pneumatic Conveying | ■ Gasification              |
| ■ Line Shut-off                   | ■ Nauta Mixer Discharge     |
| ■ Reactor Fill/Shut-off           | ■ Weigh Bin Fill            |
| ■ Silo Discharge                  | ■ Air Lock (Double-dump)    |
| ■ Lock-hopper Valves              | ■ Bag House Discharge       |
| ■ Mixer Discharge                 | ■ Ribbon Blender Discharge  |
| ■ Control Valve                   | ■ Hopper Discharge          |
| ■ Vacuum Dryer Discharge          | ■ Roaster Inlet & Discharge |
|                                   | ■ Hopper Shut-off           |

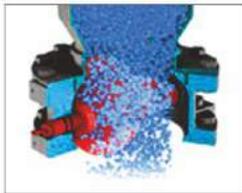
### OPTIONS

- Material of Constructions : CI / Mild Steel / Stainless Steel / Combination
- Types of Valves : Droptu / In line (For Diverting Flow)



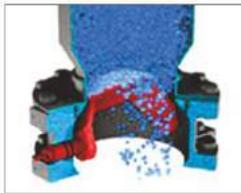
## SCHEMATICS

Valve Open



Material Passing

Valve Closing



Flow Reducing

Valve Closed

Valve Sealed with  
Inflatable seat

## PROBLEMS IN CONVENTIONAL VALVES SOLVED WITH DOME-TUFF

**Ball Valve**

Ball Valve Allows  
Product In here

Build-up or  
Compacted  
Product Jams  
Valve Motion  
Hard to Clean



Product Spoils  
Product Cross  
Contamination  
for Next Batch  
Abrasive Wear  
on Ball & Seats

**Slide Gate Valve**

Seal

Product Dust  
Leaks at Seals

Product gets  
Jammed and  
Pinched

Product Jams in Slides

Side Gate

Product Jams in Slides

**Butterfly Valve**

Product Bridges  
Over Opening 1/2  
Diameter of Pipe.





## WEAR RESISTANT BENDS : BEND TUFF

**SIZES: DN 50,65, 80, 100, 125, 150**

### MATERIAL

- Cast Steel
- Cast Stainless Steel

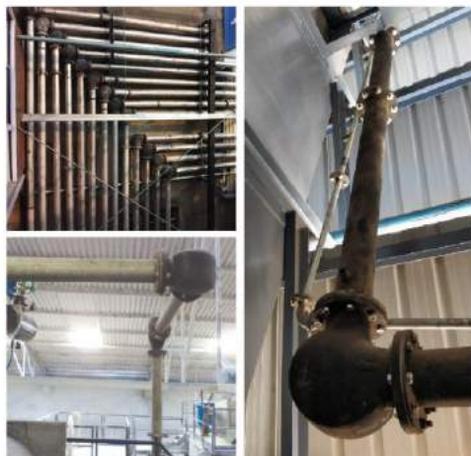
Bend Tuff from Techflow is specially designed wear resistant bends which allows a pneumatic conveying system to run for longer time without any maintenance shut down, breakage of material and jamming of material in conveying lines. can replace any ordinary or long radius bends with problem of wear & tear in line, these bend can give 20 times more life than usual bend. These bends are designed for dense phase pneumatic conveying system & dilute phase conveying systems where conveying pressures are very high.

### FEATURES

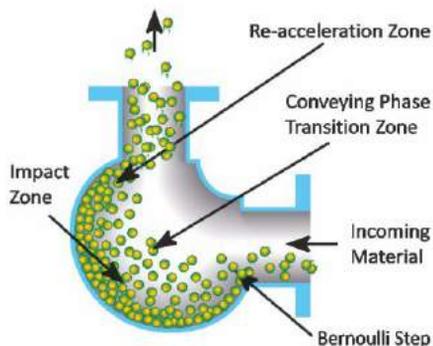
- Optimum Geometric Design.
- Minimized Pressure Drop.
- Efficient & Long Operation Time.
- Minimum 2 Years Operational Life.
- Fits In All Flanges & Pipes.
- Saves Spaces.
- Available in Various Materials.

### APPLICATION / USES

- |                      |                  |
|----------------------|------------------|
| ■ Alumina            | ■ Fluorspar      |
| ■ Ash                | ■ Gypsum         |
| ■ Bag House Dust     | ■ Sand           |
| ■ Barlite            | ■ Foundry        |
| ■ Cement             | ■ Power          |
| ■ Diatomaceous Earth | and many more... |



### SCHEMATICS



**WELDING FUME EXTRACTION SYSTEMS**

- Mobile & Portable Welding Fume Extraction Units
- Central Welding Fume Extraction Systems
- Welding Fume Extraction Arms
- Brazing/Soldering Mobile Fume Extraction Units

**FEATURES**

- 360 Deg rotation of Flexible Arm
- Portability With Flexibility on Work floor
- Easy To Move
- Sturdy Construction
- User Friendly
- Cleanable Filter
- Easy Disposal of Dust
- No Maintenance

**APPLICATION / USES**

- Welding Fume Extraction & Filtration.
- Brazing & Soldering Fume Extractions & Filtration.
- Auto Mobiles
- Weld Shops
- Engineering Units
- Robotic Welding
- SAW Pipe Welding
- General Fabrication

**OPTIONS**

- Mobile Welding Fume Extractor for Single Point Extraction
- Mobile Welding Fume Extractor for Double Point Extraction
- Central Welding Fume Extraction & Filtration System
- Manual Cleaning Model
- Auto Cleaning Model

**Optional Accessories**

- Central Dust Collector.
- VFD Control System.
- Welding Booth.
- Flexible Arm with Suction Blower.

**Before Using Fume Extractor****After Using Fume Extractor**

TECHFLOW also provides the following Accessories / Spares of Dust collectors and Pneumatic conveying system ex-stock ( As page No. 45, 46 & 47)

Filter Cartridges



Digital Seq. Controller



Pulse Valves



Diaphragm Kit For Pulse Valve



Coil For Solenoid Valve



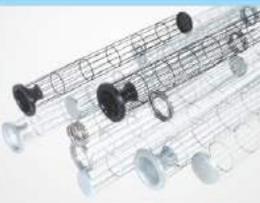
Reed Switch



Filter Bags



Filter Cages



Vibration Isolator



Pneumatic Vibrator



Alluminium Venturi



Knife Gate Valve



**DP Gauges &  
DP Switch**

**Rupture Panel /  
Explosion Vent Panel**

**Ball Valve With Actuator**

**Integrated Control Panels with  
Cloud Connectivity to Techflow Server**

**Level Sensor**

**Gaskets, PU Tubes**

**Double Gate Flap Valves**

**Screw Conveyors**

**Long Radius Bends**

**Silencers for  
Centrifugal Blowers**

**Pressure Switch**

**Exhaust Valve**


**Non-Return Valve**



**Needle Valve**



**Booster Valve**



**Pressure Safety Valve**



**HDP Filter**



**HEPA Filter**



**RTD Sensor**



**Electrical Hopper Heaters**



**Spark Cooler**



**Dome Diverter**



**Metallic Bellow**



**Flexible Bellow**



Big Bag Handling Station



Noise Enclosure



Noise Enclosure



Control Panels



Noise Enclosure



## VISION

TECHFLOW aspires to be India's leading industrial equipments & system solution provider for:

- Dust Control
- Air Pollution Control
- Centrifugal Fans & Blowers
- Pneumatic Conveying Systems with world class team, state of the art technology and best business practices

## MISSION

TECHFLOW is committed to fulfill customer orders in time & with promised quality, backed by field performance support by continuously upgrading execution methods & operational systems.

## VALUES

Our actions are guided by our values, which highlights TECHFLOW's culture.

Following are the four pillars of values for TECHFLOW.

- Customer Respect & Satisfaction,
- Ethical Transactions & Transparency,
- Fulfilment Of Commitments,
- Team-Work & Loyalty.

## Quality Control Process

## TECHFLOW ANALYSIS AND DESIGN

TECHFLOW has acquired a natural insight of equipment & system selection most suiting to an application. Pool of experienced technicians form a key strength area for observing problem, analysing causes & assessing need of primary control technology as applicable at site. The on-site surveys, feasibility study, the exchange of information with the internal production departments, the advice to the customer based on our thick experience, are the preliminary and fundamental phases of our work.

The drawing up of the project is the phase where we propose to personalize the manufacturing process according to every single user need and offer various operating solutions, explaining the best cost-benefit ratio. The guiding principle of all our design work is always in line with the latest statutory provisions and normative laws laid out by the pollution control boards / environment protection authority.



## TECHFLOW RESEARCH & DEVELOPMENT

When we are doing Dust Control or Pneumatic Conveying, generally our customers demands for trials on our pilot plant. These tests are performed for various reasons.

- When the application or product is new.
- Whet customer have failed previously with some other supplier but interested in doing with Techflow.
- To assess the degradation of the product during conveying.

## TECHFLOW MANUFACTURING AND QUALITY CONTROL

TECHFLOW has a continuous quality check system for all components of the Industrial system components, which have been procured & produced. The proprietary production system enables us to vary or modify our realizations, even during work in progress, so as to meet the customer's particular needs. It also enables us to intervene subsequently in a rapid and professional way for alterations & adjustments thus guaranteeing complete assistance. All our production is carried out with modern machinery and advanced technologies, so as to guarantee high construction standards and a long life span of systems.



## TECHFLOW INSTALLATION AND TESTING

TECHFLOW's manufactured equipments & other components are despatched only after the in-house dimensions check, specification & primary technical checks as per the mutually approved designs.

The internal QC systems assure maximum tranquillity to the customer. Performance Testing is the final phase of the work and is carried out with professionalism and accuracy. It is at this moment that the components pass the checks to prove that it operates in conditions of maximum safety, efficiency and find observance of the regulatory govt. laws.



## TECHFLOW AFTER-SALES SERVICES

TECHFLOW'S after-sales service is based on diversified systems of technical, commercial & field assistance. Our component store offers broad availability of spare parts and accessories.

Our internal production departments rapidly intervene in case of customizations, modifications and alterations. Our commercial network is structured in such a way that every customer has a privileged relation with one of our employees, thus making the exchange of information easy and optimizing the intervention time. Our teams of installation guidance and maintenance technicians travel over all operational territory and are able to commission all types of systems that have been produced by TECHFLOW.



**CNC Laser Machine**



**CNC Plasma Machine**



**Impeller Dynamic Balancing**



**Hydraulic Press Brake**



**Shear Machine**



**Punching Machine**



**Electro mechanical  
Plate Bending Machine**



**Motorized Impeller Welding**



**Inlet Cone Forming Machine**



**Automatic Welding Robot**



**R & D Plant (Pilot Plant)**



Raw Material Store



Raw Material Store



Bought Out Store



Manufacturing Bay - I



Manufacturing Bay - II



Manufacturing Bay - III



Assembly & Testing



Dispatch Bay - I



Dispatch



Techflow Team



SINCE 1979

**TECHFLOW**

Healthy Air-vironment Always .....Anywhere!



➤ **Factory at Kubadthal, Ahmedabad.**



**DESIGNERS & MANUFACTURERS**

**TECHFLOW ENTERPRISES PVT. LTD.**

AN ISO 9001-2008 COMPANY



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