

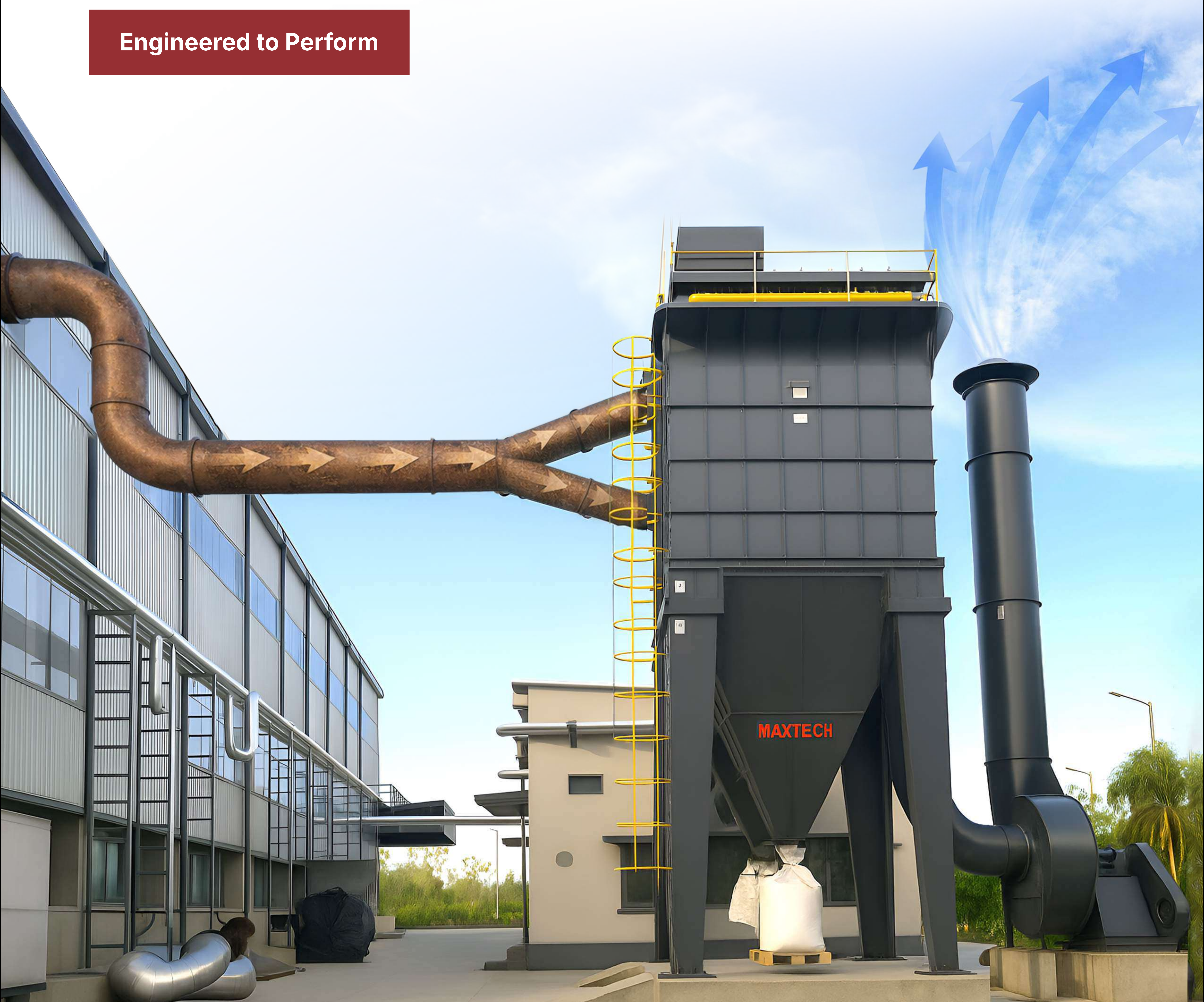


CLEAN AIR • ADVANCED TECH

Since 2003

Empowering Industries with Customized **Air Pollution Control and Dust Extraction & Collection Systems**

Engineered to Perform



About our Company

Established in 2003, we specialize in designing and manufacturing Industrial Air Pollution Control and Dust Collection Systems that promote cleaner environments and safer workplaces. With over 20 years of engineering expertise, we deliver high-performance, customized solutions trusted across industries. Our growth is driven by quality, credibility, and long-term partnerships, focused on sustainability, innovation, and shared success.



Dhiren Parekh (Founder & Managing Director)



Sapan Parekh (Managing Director)



Why Choose Us

Proven Expertise: Decades of experience backed by skilled design, manufacturing, and QA teams.

Trusted by Clients: Strong referral-based growth driven by consistent client satisfaction.

Client-First Approach: Collaborative execution from consultation to commissioning.

Customized Manufacturing: Tailor-made air pollution control & dust collection systems, made in India.

Uncompromised Quality: Assured performance, durability, and compliance with global standards.

22+
MAXTECH
YEARS OF EXPERIENCE

Facts and Figures

1000+ Dust Collection systems installed till date	500+ Fume Extraction systems installed till date	5000+ Centrifugal Blowers ID and FD
180000 Sq. Ft. Total Area of the Factory	60000 Sq. Ft. Workshop Area	20000 Sq. Ft. Administration Area
22+ Years of experience	90+ Our Teams	12+ Export Countries

Air Pollution Challenges We Solve in Industries & Their Impact



Workplace Hazards : Fine Dust, Silica, And Fumes Cause Respiratory Illnesses, Reduced Worker Safety, And Poor Visibility.

Environmental Pollution: Uncontrolled Particulate Matter (PM10 & PM2.5) Degrades Ambient Air Quality, Contributing To Smog And Climate Impact

Regulatory Non-Compliance: Industries Face Penalties, Shutdown Risks, And Reputation Loss Due To Emission Violations.

Operational Inefficiencies: Dust Buildup Damages Machinery, Increases Downtime, And Reduces Product Quality.

How Our Systems Solve These Challenges

Our Air Pollution Control And Dust Collection Systems Are Engineered To:

Capture Emissions At Source → Preventing Harmful Dust, Smoke, And Fumes From Spreading.

Filter Up To 99.9% Of Particulates → Ensuring Clean, Breathable Air In The Workplace And Environment.

Handle High-Temperature & Corrosive Gases → With Advanced Filtration And Material Designs.

Comply With Global Emission Norms → Meeting CPCB, NAAQS, OSHA, And EU Standards.

Reduce Energy Losses → With Efficient Fan Systems, PUF-Insulated Designs, And Automated Cleaning Mechanisms.

Reverse Pulse Jet - Cartridge Type Dust Collector

Product Overview: The **Reverse Pulse Jet Cartridge Dust Collector** Is A Compact, High-Efficiency Air Pollution Control System Designed To Remove Fine Dust, Fumes, And Particulate Matter From Industrial Processes. It Uses Pleated Cartridge Filters Cleaned Automatically By Short Bursts Of Compressed Air In The Reverse Direction, Ensuring Continuous Operation.

Working Principle: Dust-Laden Air Enters The Collector And Passes Through Pleated Cartridge Filters Where Dust Is Captured On The Outer Surface. At Pre-Set Intervals, Compressed Air Pulses Clean The Cartridges In Reverse Flow, Dislodging Dust Into The Hopper For Easy Disposal, While Clean Air Exits Through The Outlet.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Airflow Capacity	1000 – 100,000 CFM / m ³ /hr (Can be customized based on process requirements).
Filtration Media	Pleated Bag / Cartridge Type
Filtration Efficiency	99% for fine & sub-micron particles
Filter Area	As per requirement (depending on model)
Air-to-Cloth Ratio	As per requirement
Cleaning Mechanism	Reverse Pulse Jet (Compressed Air)
Pulse Pressure	4–5 kg/cm ²
Pulse Duration	As per required
Cleaning Control	Timer-based or Differential Pressure (ΔP)
Operating Temperature	Up to 110°C (higher on request)
Dust Discharge	Rotary airlock / Screw conveyor / Collection drum / Dustbins / Double Gate Gravity Dampers
Construction Material	Mild Steel / Stainless Steel (SS 304 / SS 316)
Blower & Motor	Direct or belt driven, IE2 / IE3 efficiency
Power Supply	415 V / 50 Hz / 3 Phase

Reverse Pulse Jet - Bag-Cage Type Dust Collector

Product Overview: The **Reverse Pulse Jet Bag-Cage Type Dust Collector** is a robust and highly reliable air pollution control system designed for continuous removal of heavy and fine dust from industrial processes. It uses fabric filter bags supported by cages and is cleaned automatically by reverse pulse compressed air, ensuring stable performance even under high dust-loading conditions.

Working Principle: Dust-laden air enters the collector and passes through fabric filter bags where dust particles are retained on the bag surface. Periodic reverse pulses of compressed air dislodge the dust cake from the bags, allowing it to fall into the hopper for disposal, while clean air exits through the outlet.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Airflow Capacity	1000 – 100,000 CFM - m ³ /hr (Can be customized based on process requirements).
Filtration Media	Pleated Bag / Cartridge Type
Filtration Efficiency	99% for fine & sub-micron particles
Filter Area	As per requirement (depending on model)
Air-to-Cloth Ratio	As per requirement
Cleaning Mechanism	Reverse Pulse Jet (Compressed Air)
Pulse Pressure	4–5 kg/cm ²
Pulse Duration	As per required
Cleaning Control	Timer-based or Differential Pressure (ΔP)
Operating Temperature	Up to 110°C (higher on request)
Dust Discharge	Rotary airlock / Screw conveyor / Collection drum / Dustbins / Double Gate Gravity Dampers
Construction Material	Mild Steel / Stainless Steel (SS 304 / SS 316)
Blower & Motor	Direct or belt driven, IE2 / IE3 efficiency
Power Supply	415 V / 50 Hz / 3 Phase

Reverse Pulse Jet - PUF Insulated Type **Dust Collector**

Product Overview: The **Reverse Pulse Jet PUF Insulated Type Dust Collector** is engineered for high-temperature and moisture-prone industrial applications. The unit is externally insulated with PUF panels to prevent heat loss and condensation, ensuring stable filtration efficiency, long filter life, and reliable operation in harsh process conditions.

Working Principle: Hot, dust-laden air enters the collector and passes through filter bags where dust is retained. Periodic reverse pulse compressed air jets clean the filters, dislodging dust into the hopper. PUF insulation maintains internal temperature and avoids moisture formation.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Airflow Capacity	1000 - 20000 CFM - m ³ /hr (Can be customized based on process requirements.)
Filtration Media	Polyester / Aramid (Nomex) / PTFE / Glass Fiber
Filtration Efficiency	99.9%
Cleaning Mechanism	Reverse Pulse Jet (Compressed Air)
Cleaning Control	Timer-based or Differential Pressure (AP)
Operating Temperature	Up to 110°C (media dependent)
Insulation Type	PUF Insulated Panels
Insulation Thickness	40-100 mm
Dust Discharge	Rotary airlock / Screw conveyor / Double flap valve
Construction Material	Mild Steel with PUF cladding / SS optional
Blower & Motor	Belt or direct driven, IE2 / IE3 efficiency
Power Supply	415 V/50 Hz / 3 Phase

Envelope Type Dust Collector

Product Overview: The **Envelope Type Dust Collection System** is a high-efficiency dry dust filtration system designed to capture fine and medium particulate matter from industrial processes. It uses envelope-shaped fabric filter elements, providing a large filtration area in a compact footprint. The system is suitable for continuous operation and ensures compliance with environmental emission norms. Designed for applications involving high dust loading and low to medium temperature gases.

Working Principle:

- Dust-Laden Air Enters The Dust Collector Through The Inlet.
- Heavy Particles Settle In The Hopper By Gravity.
- Fine Dust Is Trapped On Envelope-Type Filter Bags.
- Clean Air Passes Through The Filter Media And Exits The System.
- Dust Accumulated On Filters Is Removed By Pulse Jet / Reverse Air Cleaning.
- Collected Dust Is Discharged From The Hopper Via Rotary Valve Or Manual System.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Air Handling Capacity	1,000-100,000 CFM - m³/hr (Can be customized on the basis of process requirement)
Filtration Efficiency	99.5% to 99.9%
Outlet Emission	< 20 mg/Nm³
Filter Media	Polyester / PP / Acrylic / Nomex / PTFE
Operating Temperature	Up to 120°C (standard), up to 220°C (high-temp)
Cleaning System	Pulse Jet / Reverse Air
Pressure Drop	120-180 mmWC
Construction	MS (painted) / SS 304 / SS 316
Hopper	60° sloped with dust discharge arrangement

Motorized Shaker Bag Type Dust Collector

Product Overview: The **Motorized Shaker Bag Type Dust Collector** is a simple, robust, and cost-effective dust collection system for intermittent or low-to-medium dust-loading applications. Dust collected on fabric filter bags is removed by a motor-driven mechanical shaking mechanism, eliminating the need for compressed air and reducing operating costs.

Working Principle: Dust-laden air passes through fabric filter bags where dust is retained on the bag surface. At preset intervals, a motorized shaking mechanism vibrates the bags, dislodging accumulated dust into the hopper or collection bin, while clean air exits through the outlet.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Airflow Capacity	1000 - 20,000 CFM - m ³ /hr (Can be customized based on process requirements.)
Filtration Media	Polyester / Cotton / Acrylic
Filtration Efficiency	99%
Filter Bag Diameter	As per requirement
Filter Bag Length	1,500 - 3,000 mm As per requirement
Cleaning Mechanism	Motorized Mechanical Shaking
Operating Mode	Intermittent / Offline Cleaning
Air-to-Cloth Ratio	As per requirement
Operating Temperature	Up to 110°C
Dust Discharge	Dust bin / Screw conveyor
Construction Material	Mild Steel / Stainless Steel (Optional)
Drive System	Geared motor with shaking linkage
Power Supply	415 V / 50 Hz / 3 Phase

Manual Shaker Bag Type Dust Collector

Product Overview: The **Manual Shaker Bag Type Dust Collector** is a simple, economical, and dependable dust control solution for small-scale and intermittent operations. Dust captured on fabric filter bags is removed by a hand-operated shaking mechanism, eliminating the need for compressed air or automatic cleaning systems.

Working Principle: Dust-laden air passes through fabric filter bags where dust particles are retained on the bag surface. At regular intervals, the operator manually shakes the bags using a handle mechanism, causing the dust to fall into the hopper or collection bin while clean air exits through the outlet.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Airflow Capacity	1000 - 20,000 CFM - m ³ /hr (Can be customized based on process requirements.)
Filtration Media	Polyester / Cotton / Acrylic
Filtration Efficiency	99%
Filter Bag Diameter	120-160 mm
Filter Bag Length	1,000-3,000 mm
Cleaning Mechanism	Manual Mechanical Shaking
Operating Mode	Offline / Intermittent
Air-to-Cloth Ratio	0.6: 1 to 1.0:1
Operating Temperature	Up to 120°C
Dust Discharge	Dust bin / Collection tray
Construction Material	Mild Steel / Stainless Steel (Optional)
Utility Requirement	Not required for cleaning
Power Supply	Not required (except fan, if provided)

Multi-Cyclone Dust Collector

Product Overview: The **Multi-Cyclone Dust Collector** is a mechanical dust separation system consisting of multiple small-diameter cyclones operating in parallel. It is designed for high dust-loading and high-temperature applications, efficiently removing coarse and medium particles using centrifugal force, without the use of filter media.

Working Principle: Dust-laden gas enters the multi-cyclone chamber and is distributed into multiple cyclonic tubes. Each cyclone generates a strong centrifugal force that drives dust particles to the walls, where they fall into a hopper, while clean gas exits from the top.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Airflow Capacity	1000 - 100,000 CFM - m³/hr (Can be customized based on process requirements.)
Particle Size Removal	0.5 microns (high efficiency for coarse dust)
Collection Efficiency	70-95% (dust dependent)
Operating Temperature	Up to 300°C
Pressure Drop	100-250 mm WC
Construction Material	Carbon Steel / Stainless Steel
Number of Cyclones	6-48 (customizable)
Dust Discharge	Rotary airlock / Screw conveyor
Moving Parts	None
Power Requirement	Not required (except induced draft fan)
Maintenance	Very low

Cyclone Dust Collector

Product Overview: The **Cyclone Dust Collector** is a robust and cost-effective mechanical dust separation system that removes particulate matter from air or gas streams using centrifugal force. It is best suited for coarse and medium dust particles, high dust loading, and high-temperature applications, without the use of filter media.

Working Principle: Dust-laden air enters the cyclone tangentially, creating a high-velocity spiral motion. Centrifugal force drives dust particles toward the cyclone wall, where they lose momentum and fall into the hopper, while clean air exits through the vortex finder at the top.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Airflow Capacity	1000 - 100,000 CFM - m³/hr (Can be customized based on process requirements.)
Particle Size Removal	0.5 microns (coarse dust)
Collection Efficiency	70 - 95% (particle & design dependent)
Operating Temperature	Up to 300°C
Pressure Drop	100-250 mm WC
Construction Material	Mild Steel / Stainless Steel
Dust Discharge	Dust bin / Rotary airlock
Moving Parts	None
Power Requirement	Not required (except fan)
Maintenance	Very low

Vent Filter for Silo With **Dust Collector**

Product Overview: The **Vent Filter for Silo** is a compact dust control system designed to release displaced air during pneumatic filling of silos while preventing dust emission into the atmosphere. It ensures clean venting, protects the surrounding environment, and maintains compliance with air pollution control norms.

Working Principle: During pneumatic conveying or silo filling, air displaced from the silo passes through the vent filter. Dust particles are trapped on the filter elements, while clean air is released to the atmosphere. Accumulated dust is periodically cleaned from the filters and returned back into the silo.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Airflow Capacity	1000 to 20,000 CFM
Filtration Media	Polyester / PTFE Coated
Filtration Efficiency	99.9%
Cleaning Mechanism	Reverse Pulse Jet
Pulse Pressure (Pulse Type)	4-5 kg/cm ²
Filter Type	Cartridge / Bag
Operating Temperature	Up to 80°C
Mounting	Silo Top / Roof Mounted
Dust Return	Gravity back to silo
Construction Material	Mild Steel / Aluminium / SS (Optional)
Weather Protection	Rain hood / Weather cover
Power Supply (Pulse Type)	230/415 V, 50 Hz



Filter Cleaning Station With **Dust Collector**

Product Overview: A **closed-loop Filter Cleaning Station** in stainless steel 304 (SS-304) for pharmaceutical use provides a controlled, contamination-free method to clean and reclaim primary/pre-filters and, where permitted, to service HEPA/absolute filters. The unit integrates a cleaning chamber, wash/blow/dry subsystems and a dedicated HEPA-rated dust collector to capture dislodged particulates, ensuring operators and rooms remain uncontaminated during maintenance. surrounding environment, and maintains compliance with air pollution control norms.

Working Principle: Enclosed chamber: the used filter is placed in a sealed cleaning chamber to prevent particulate escape.



Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Construction	SS-304 (AISI 304) chamber & filter supports; GMP finish (electro polished) optional.
Chamber layout	2-4 chambers (loading, gross cleaning, wash/rinse, drying).
Dimensions (example footprint)	1,200 × 900 × 1,800 mm (single-unit) scalable for multiple filters. (manufacturer to confirm).
Air handling / dust collector	nominal 1,000 - 6,000 m ³ /hr options (select by filter size & cleaning throughput) with HEPA final stage (H13/H14).
Cleaning media	
Drying	low-pressure compressed air (1-6 bar) for pulse/back-flushing; spray wash pressur
Power & utilities	1-3 bar; ultrasonic frequencies 25-40 kHz (if fitted).
Filtration efficiency	warm air blower with temp control up to 60-80°C (adjust per filter media tolerance).
	typical single-unit electrical 3-phase 415 V, 50 Hz; compressed air supply (if pulse jets) 6 bar; water & drain for wash cycle. (Exact consumption per model.)
	HEPA final collector: ≥99.97% @ 0.3 µm (H13) or 99.995% (H14) options.

Fume Extraction System

Fume Extraction:



Fume Extraction - Integrated With Cyclone Separator



Pneumatic Conveying System

Product Overview: The **Pneumatic Conveying System** is an efficient and enclosed material handling solution used to transport bulk powders, granules, and pellets through pipelines using air or gas flow. It ensures dust-free, hygienic, and flexible conveying over long distances with minimal material loss.

Technical Specifications

PARAMETER	SPECIFICATION / RANGE
Conveying Type	Dilute Phase / Dense Phase
Material Form	Powder, granules, pellets
Conveying Capacity	0.5 - 500 TPH (material dependent)
Conveying Distance	Up to 300 m (horizontal + vertical)
Conveying Air Velocity	As required
Operating Pressure	Vacuum: As required / Pressure: As required
Conveying Line Diameter	40-300 mm
Air Source	Centrifugal blower / Roots blower / Compressor
Material Separation	Cyclone / Bag filter / Receiver
Control System	Manual / PLC / Automation
Construction Material	MS/SS/Food-grade SS
Power Supply	415 V / 50 Hz / 3 Phase



Scrubbers

Wet Scrubber



Ventury Scrubber



Centrifugal ID Blower

Direct Drive



Direct Drive



Centrifugal **FD Blower**

Direct Drive



V-Belt Drive



Couple Drive



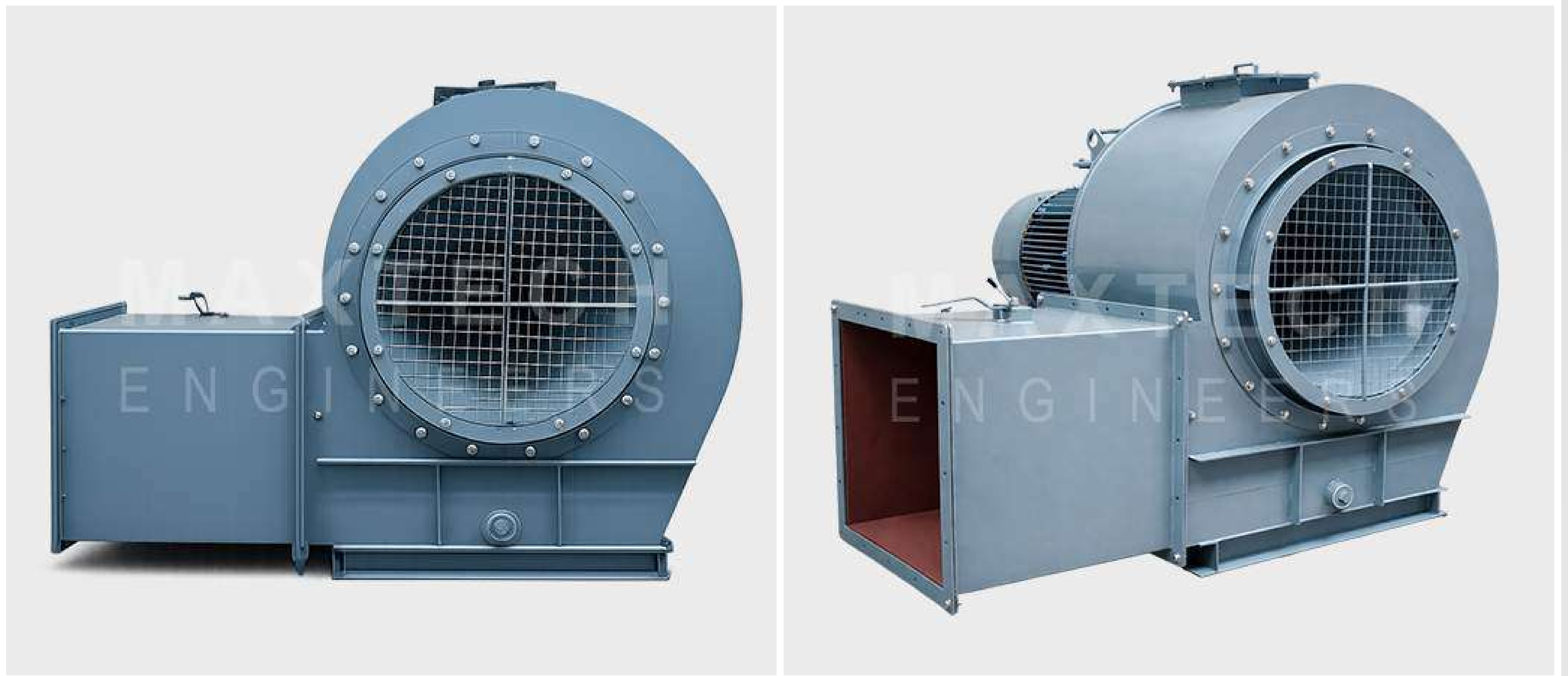
Centrifugal **SISW Blower**



Centrifugal **DIDW Blower**



Centrifugal **High Pressure Blowers**



Centrifugal **Hot Air Blower**



Ancillary Spare Parts

Rotary Air Lock Valve



Wear Resistant Bend



Sequential Timer Machine



Solenoid Valve



Filter Bag



Cartridge Filter



Cage Cartridge Filter



Our Industrial **Project Portfolio**

Installed at Asphalt Drum Mix Processing Company



For Sacmi Continua Press Installed At Slabs Tiles Manufacturing Company

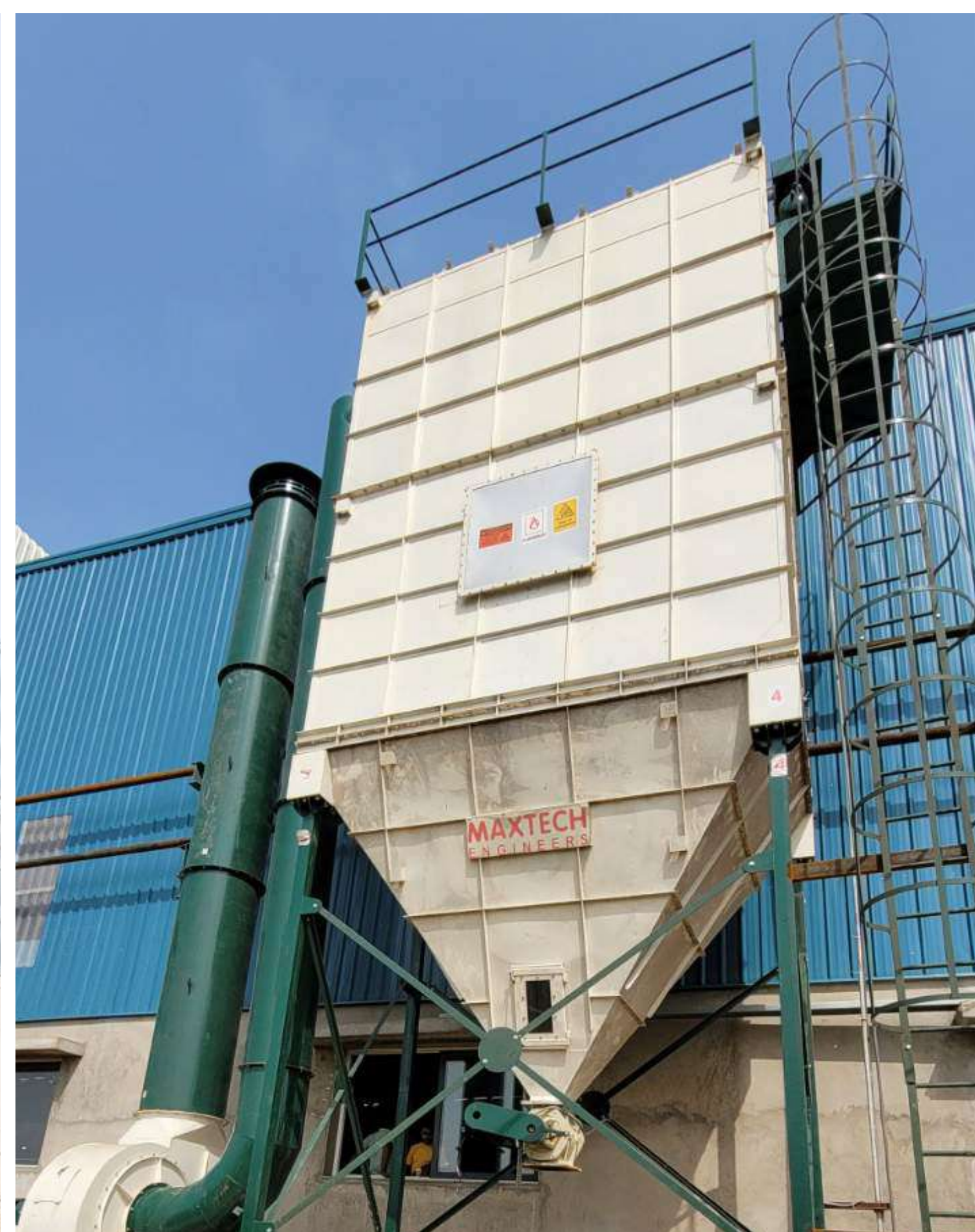
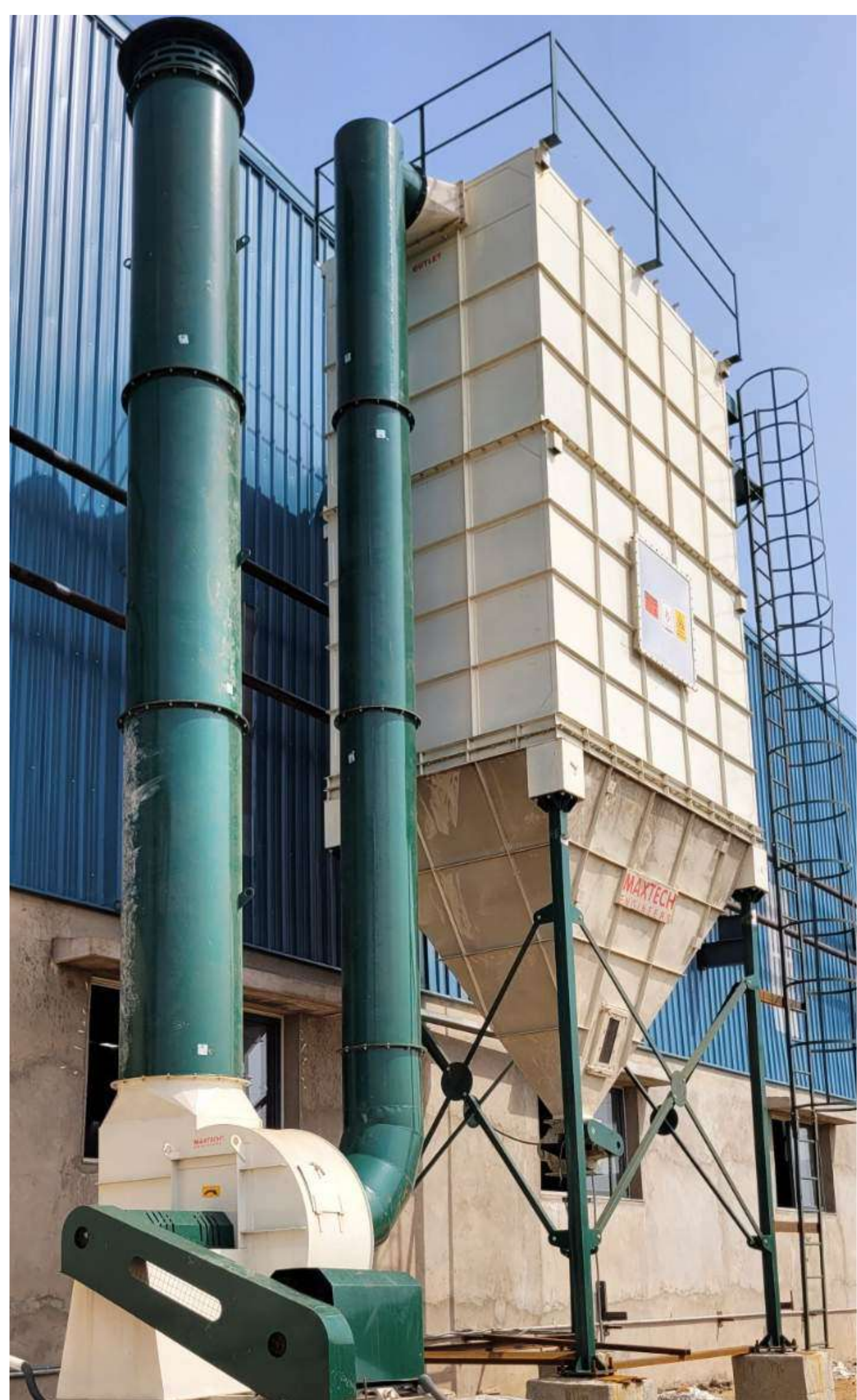


For Metal Pouring Into Casting Moulds Process Installed At A Foundry Company



Our Industrial **Project Portfolio**

Installed At Plywood Manufacturing Company



Installed At Minerals Mining Manufacturing Company For Their Crusher Material Handling Process





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ENGINEERS



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