



DECON CONSULTING & PROJECT ENGINEERS



Our Website



POLLUTION CONTROL & HVAC SYSTEMS

Efficient Solution for Steel, Power, Cement and Mining Industries.



Bag Filter



Gas Cooler



ESP

□ Company Profile

Year of Establishment: 2005 (Subsidiary of the Parent Company “Decon Consulting Engineers”, established in 2000)

We are an engineering consultancy and manufacturing organization specializing in Pollution Control and HVAC Systems, delivering comprehensive, end-to-end solutions for industrial and commercial applications. Our expertise spans Air Pollution Control (APC) systems, dust extraction and collection, fume and gas handling, ventilation systems, industrial and comfort HVAC, and heat recovery solutions, designed to meet stringent environmental norms and operational requirements.

All our systems are manufactured under the reputed brand name “DECON”, widely recognized for engineering excellence, reliability, high performance, and long-term operational efficiency. With a strong focus on innovation, quality, and compliance, we provide customized solutions that ensure cleaner air, energy efficiency, and sustainable plant operations across diverse industries.

□ Engineering Cleaner & Sustainable Industrial Operations

- We design and deliver advanced pollution control systems that help industries meet environmental regulations while ensuring efficient and reliable plant operation. Our solutions are engineered for **high performance, durability, and low maintenance, tailored to suit process-specific requirements.**
- Our solutions are developed with a strong focus on **process optimization, structural durability, and long-term lifecycle performance.** Each system is engineered using a **data-driven and analysis-based approach,** ensuring dependable performance under real operating conditions.
- We are a **MSME-registered organization** and operate under an **ISO 9001:2015 certified quality management system,** ensuring consistency, traceability, and engineering excellence in every project. Our engineering capabilities include **advanced CAD design, detailed 3D modeling, structural FEA analysis, CFD analysis, and laboratory-supported testing and validation** to achieve **high precision, safety, and reliability.**

□ Our Bag Filter Solutions

- We offer end-to-end engineering and manufacturing for a wide range of industrial bag filters and particulate emission control systems.

Pulse Jet (On-line) Bag Filter

- Most widely used type
- Compressed air pulses clean the bags online
- Compact design, high air-to-cloth ratio
- Suitable for cement, steel, power, and process industries
- ✓ Continuous operation
- ✓ Low maintenance
- ✓ High filtration efficiency



Reverse Air (Off-line) Bag Filter

- Cleaning by reverse airflow
- Typically compartmentalized
- Requires offline cleaning
- ✓ Gentle on filter bags
- ✓ Suitable for high-temperature applications
- ✓ Longer bag life



Cartridge Type Bag Filter

- Uses pleated cartridge filters instead of fabric bags
- Compact footprint
- ✓ High filtration area
- ✓ Suitable for fine dust applications
- ✓ Easy replacement



□ Our Electrostatic Precipitator (ESP) Solutions

- We offer end-to-end engineering and manufacturing for high-efficiency electrostatic precipitator systems for industrial particulate emission control.

Dry Electrostatic Precipitator

Used for removal of dry particulate matter from industrial flue gases.

- ✓ Suitable for high-temperature applications
- ✓ Widely used in cement, power, and steel plants



Wet Electrostatic Precipitator

Designed for capturing fine, sticky, or moist particles and acid mists.

- ✓ High efficiency for sub-micron particles
- ✓ Ideal for chemical and process industries

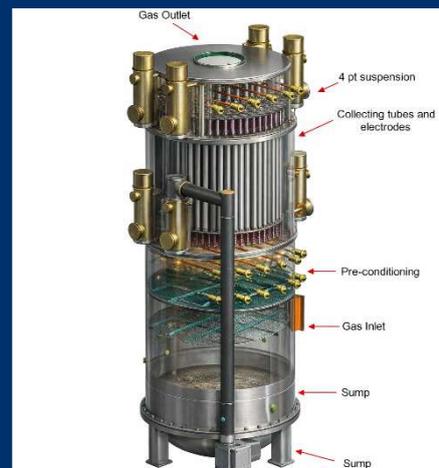
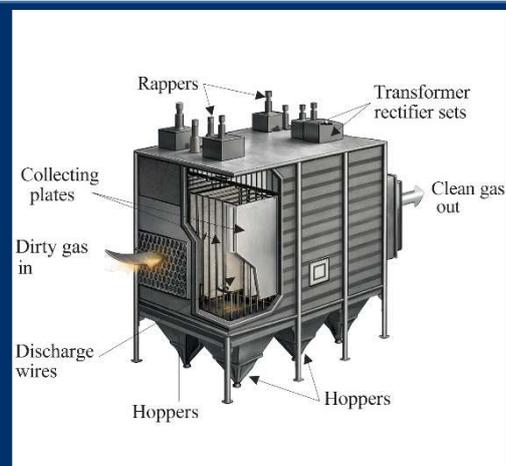


Plate-Type Electrostatic Precipitator

Features flat collecting plates and discharge electrodes.

- ✓ Suitable for large gas volumes
- ✓ High collection efficiency



□ Dust & Particulate Control Equipment

- We offer end-to-end engineering and manufacturing for reliable and efficient equipment for industrial dust and particulate emission control.

Cyclone Separators

- ✓ Efficient pre-separation of coarse dust particles
- ✓ Reduces dust loading on downstream bag filters and ESPs
- ✓ Rugged construction with low maintenance requirements



Wet Scrubbers

- ✓ Effective removal of dust, fumes, and gaseous pollutants
- ✓ Suitable for sticky, moist, and explosive dust applications
- ✓ High gas absorption efficiency with reliable performance



Dust Extraction & Collection Units

- ✓ Localized dust control at the source of generation
- ✓ Compact, modular, and space-efficient designs
- ✓ Enhances workplace cleanliness and operator safety



□ HVAC Systems Solutions

- We offer end-to-end engineering and manufacturing of HVAC systems for efficient ventilation, temperature control, and improved indoor air quality in industrial and commercial facilities.

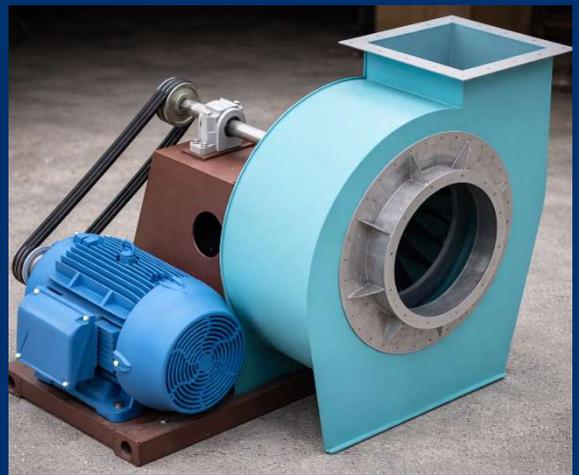
Heat Exchangers

- Water cooled
- F.D. Air cooled type indirect
- Contact Heat Exchanger for hot gas cooling
- Hot lubricating oil cooling
- water pre-heating
- steam condensing application.
- ✓ Effective cooling using ambient air
- ✓ Low operating and maintenance cost
- ✓ Suitable for cement, steel, and power plants



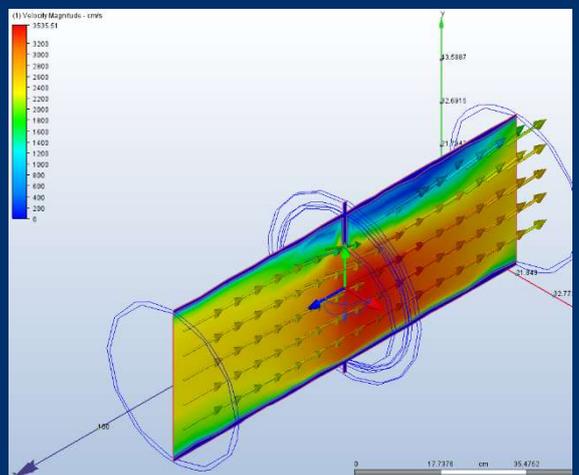
Industrial Fans

- ✓ Induced Draft (ID), Forced Draft (FD), and process fans
- ✓ Designed for high-temperature and dust-laden gases
- ✓ Optimized for stable airflow and energy efficiency
- ✓ Low vibration with dynamic balancing



Ducting with Valves

- ✓ Engineered ducting for hot and dusty gases with CFD Analysis
- ✓ Volume control, isolation, and bypass valves
- ✓ Optimized routing with minimal pressure loss
- ✓ Designed for thermal expansion and safe operation



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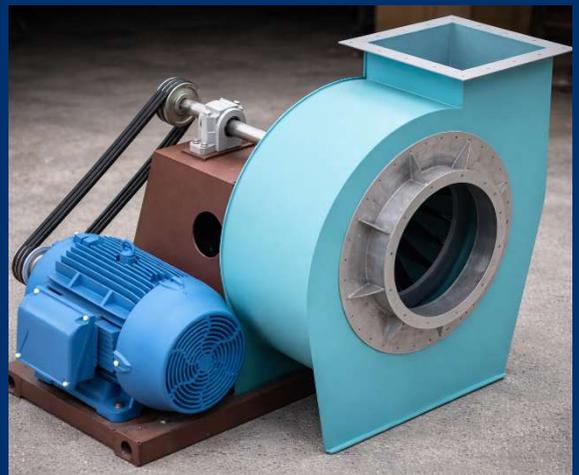
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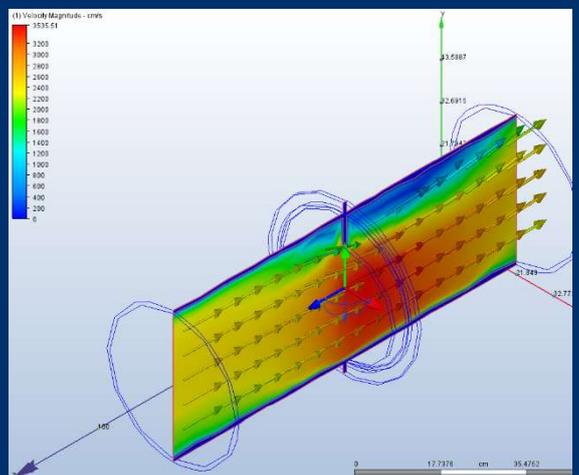
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□ Engineering & Design Capabilities

➤ Our engineering team delivers comprehensive design and validation solutions covering the complete lifecycle of material handling and process equipment—from concept development to detailed engineering and execution support.:

➤ Core Engineering Services

- Conceptual & Feasibility Engineering
- Process Design & Equipment Selection
- Layout Planning & System Integration
- Design Optimization for Performance & Cost
- Design for Manufacturability (DFM) & Assembly (DFA)

➤ CAD & 3D Modeling

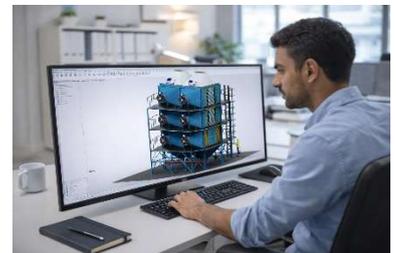
- 2D Engineering Drawings (GA, Fabrication, Assembly)
- Advanced 3D CAD Modeling & Parametric Design
- Assembly & Interference Checks
- Digital Mock-ups & Virtual Prototyping
- Revision Control & Design Documentation



3D MODELING WITH

3D SOLIDWORKS

3D CATIA



Ansys



FEA & CFD ANALYSIS WITH

AUTODESK
Inventor Nastran



2D DETAILED DRAWING WITH



□ Engineering & Design Capabilities

➤ Testing & Validation

- Laboratory-supported testing & verification
- Design validation against operating conditions
- Performance and safety checks
- Compliance verification with applicable standards

➤ Standards & Quality Compliance

- ISO 9001:2015 Quality Management System
- IS / DIN / ISO / ASME / ASHRAE / ASHVE / ACGIH / TEMA
- Industry-specific safety & environmental norms
- Client-specified design codes and guidelines

➤ Typical Engineering Deliverables

- Design Calculations & Technical Reports
- 2D & 3D Engineering Drawings
- Analysis Reports (FEA / CFD)
- Bill of Materials (BOM)
- Manufacturing & Installation Support Documents

➤ Design Philosophy

- ✓ Safety-first engineering
- ✓ Precision-driven design
- ✓ Performance-oriented solutions
- ✓ Lifecycle reliability
- ✓ Continuous improvement

Automation & Control Systems

➤ Our automation solutions enhance safety and productivity through intelligent control:

- PLC & HMI System Design
 - Interlocking & Sequencing Logic
 - VFD-based Speed Control
 - Safety Interlocks & Emergency Systems
 - Instrumentation Integration



❑ **Why Choose Us**

- ✓ MSME Registered Organization
- ✓ ISO 9001:2015 Certified Quality Management System
- ✓ Analysis-Driven Engineering Approach
- ✓ Advanced CAD, 3D Modelling, FEA & CFD Expertise
- ✓ Precision Design with Laboratory-Supported Validation
- ✓ Industry-Compliant & Safety-Focused Solutions
- ✓ Reliable Engineering Support from Concept to Commissioning

❑ **Industries We Serve**

- Cement & Building Materials
- Steel & Metal Processing
- Power & Energy
- Mining & Bulk Material Handling
- Chemicals & Process Industries
- Manufacturing & Automation Plants

Our Esteemed Customers



Contact Us

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