SIX ELECTROSTATIC PRECIPITATOR INSTALLATIONS

FOR THREE 2 × 45 MW THERMAL POWER PLANTS

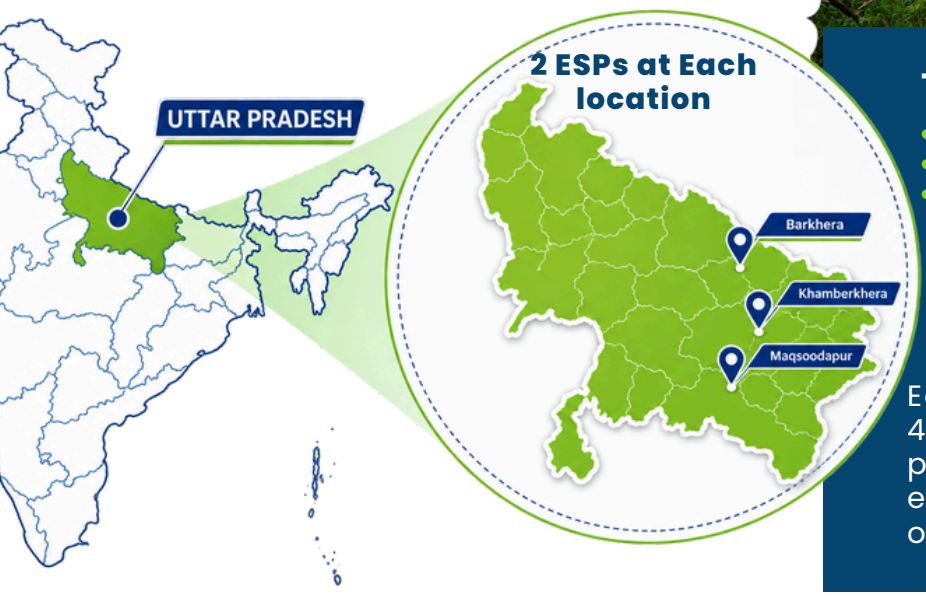
Complete Design, Engineering, Manufacturing, Supply, Installation Supervision & Commissioning



Project Overview:

VT Corp was awarded the complete execution of six Electrostatic Precipitators (ESPs) for three thermal power plants belonging to one of India's leading sugar manufacturers.

The project covered the complete lifecycle of the ESP systems from detailed engineering and manufacturing to site supervision, testing and commissioning.



The installations comprised:

- 2 ESPs – Khamberkhera
- 2 ESPs – Barkhera
- 2 ESPs – Maqsoodapur



Each installation was designed for a 2 × 45 MW coal fire-fired thermal power plant, providing reliable particulate emission control under continuous operating conditions.

Project Snapshot

Parameter	Details
Industry	Thermal power plant
Number of Plants	3
Total ESPs Installed	6
Plant Capacity	2 × 45 MW (2x190 TPH CFBC Boiler (Each Location)
Boiler Fuel	Coal fired
Scope	Complete Design, Engineering, Manufacturing, Supply, Installation Supervision & Commissioning

PROJECT REQUIREMENTS

The ESP systems were designed to operate under demanding coal fire-fired boiler conditions while ensuring reliable particulate collection and continuous plant operation.

The design considered:

- High dust loading
- Variable ash characteristics
- Fluctuating boiler loads
- Continuous operation
- Long equipment life
- Ease of maintenance
- Reliable emission control

THE APPROACH

Each ESP was engineered specifically for the operating conditions of the respective plant rather than adopting a standard configuration.

The engineering focused on achieving stable gas distribution, efficient particle collection and dependable long-term performance while maintaining ease of maintenance throughout the equipment lifecycle.

DESIGN HIGHLIGHTS

- Multi-field ESP configuration
- Optimized gas flow distribution
- Uniform electrical field across collecting zones
- High-efficiency collection and discharge electrode arrangement
- Robust rapping mechanism
- Low pressure drop
- Maintenance-friendly access
- Designed for continuous-duty operation

SCOPE OF SUPPLY

VT Corp executed the complete ESP package, including:

- Process & Mechanical Engineering
- Electrical Engineering
- ESP Design & Sizing
- Structural Design
- Complete ESP Manufacturing
- Collection & Discharge Electrode Systems
- Transformer Rectifier Sets
- Control Panels
- Hopper Assemblies
- Access Platforms & Structural Supports
- Installation Supervision
- Testing & Commissioning
- Performance Guarantee

TECHNICAL SPECIFICATIONS

Parameter	Value
Plant Capacity	2 × 45 MW
Application	Thermal Power Plant
ESP Type	Multi-Field Electrostatic Precipitator
Flue Gas	Coal fire Fired Boiler
Duty	Continuous Operation

Every project begins with a clean sheet of paper. Our responsibility is to transform engineering intent into reliable plant performance.

- VT Corp Engineering Team

MAJOR EQUIPMENT SUPPLIED

The complete ESP package included:

- ESP Casing
- Collection Electrode System
- Discharge Electrode System
- Rapping Mechanism
- Hopper Assembly
- Inlet & Outlet Ducts
- Transformer Rectifier Sets
- Electrical Control Panels
- Insulator System
- Structural Supports
- Platforms & Staircases



PROJECT EXECUTION

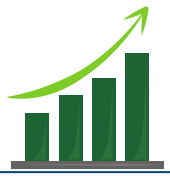
The project was executed simultaneously across three thermal power plants, requiring close coordination between engineering, manufacturing, logistics and site teams.

Standardized engineering practices and disciplined project execution ensured consistent quality, timely commissioning and uniform system performance across all six installations.



RESULTS

- Six Electrostatic Precipitators successfully commissioned
- Three thermal power plants equipped with VT Corp ESP systems
- Reliable particulate emission control under continuous operation
- Standardized engineering across all project locations
- Single-source responsibility from design through commissioning
- Long-term operational reliability with simplified maintenance



VT CORP EXPERTISE

With over 60+ years of experience, VT Corp delivers customized Electrostatic Precipitator solutions for thermal power, sugar, cement, sponge iron and other process industries.

From installations to retrofit projects, every system is engineered to meet plant-specific operating conditions while ensuring reliable performance, regulatory compliance and long service life.



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