



VPSTEC Projects

Empowering Industries Through Engineering Excellence

Integrated Solutions in Mechanical • Electrical • Plumbing • HVAC • Fire Protection & Industrial Utilities

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A HI-TECH Engineering Group Company

Who We Are



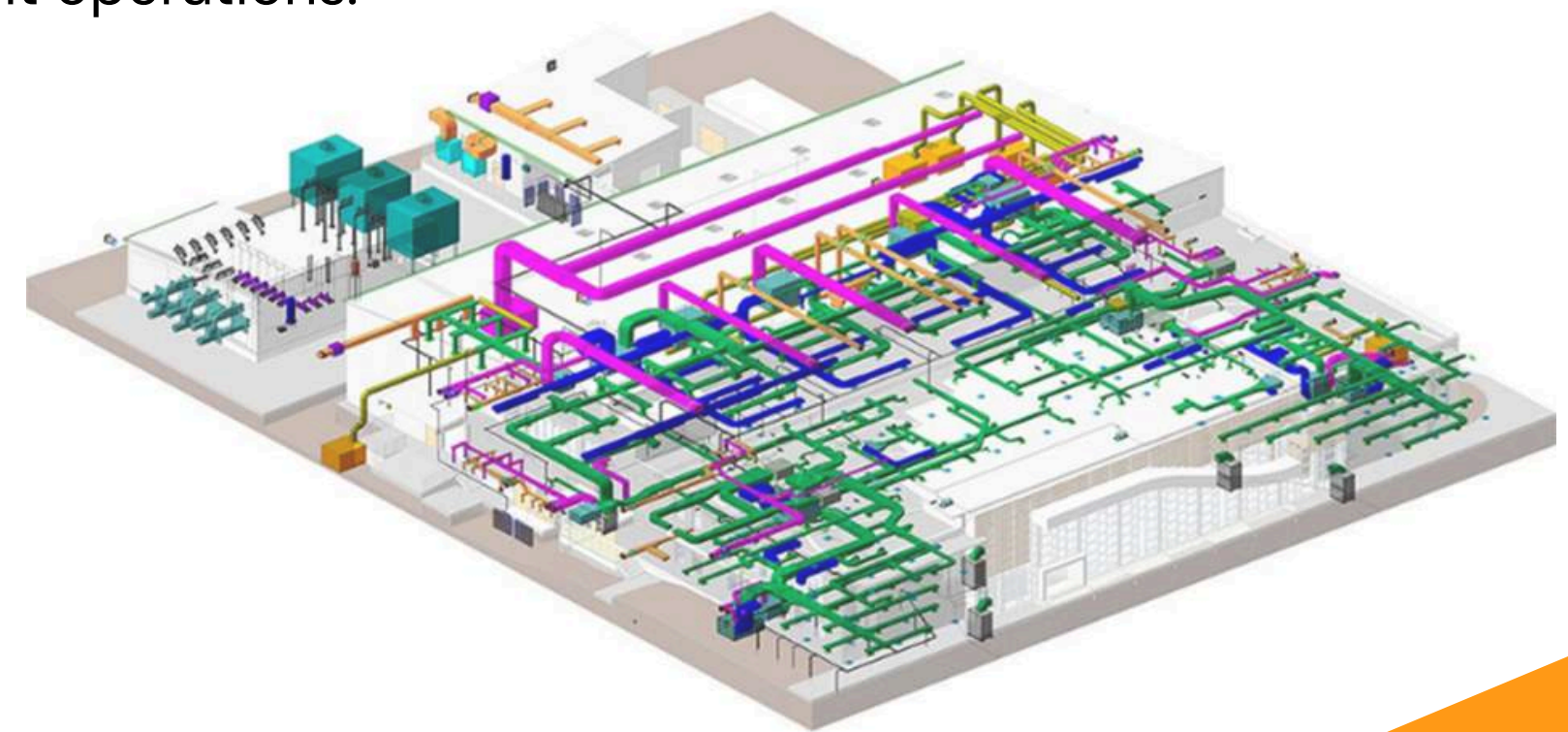
MEP Systems | Electrical | HVAC | Fire Protection | Industrial Utilities | Plant Layout & Machinery Engineering

VPSTEC Projects Pvt. Ltd. is a **turnkey engineering solutions company** delivering integrated services in above areas

Our expertise covers **design, engineering, installation, and commissioning** of integrated industrial infrastructure, including **MEP systems, electrical distribution, HVAC, fire protection, industrial utilities, and plant layout** with machinery integration, ensuring safe, efficient, and compliant operations.

◆ Industries Served :

- **Manufacturing Plants**
- **Warehouses & Logistics Facilities**
- **Industrial Infrastructure Projects**



Expertise at a Glance



Our Esteemed Clients



Volkswagen



VPSTEC – Our Unique Value Proposition



VPSTEC positions itself as a specialized **turnkey engineering partner** for **small & midsize manufacturing and industries**, bridging the gap between large EPC contractors and fragmented equipment suppliers.

◆ What Differentiates VPSTEC

- **Integrated Concept-to-Commissioning Approach**

Complete project lifecycle support – from plant layout, engineering design, utilities integration, equipment installation, to final commissioning.

- **Agile & Custom Engineering Execution**

Flexible execution model enabling faster decision-making, customized solutions, and responsive project delivery.

- **Specialization in Manufacturing Infrastructure**

Focused expertise in plant utilities, industrial systems, and production infrastructure, ensuring practical and implementation-ready engineering.

- **Multi-Disciplinary Engineering Capability**

Integrated execution across MEP, utilities, pollution control, piping, electrical, and material handling systems under one project framework.

- **Trusted Partner for Mid-Scale Industrial Projects**

Highly suited for manufacturing plants, warehouses, and industrial facilities requiring customized engineering solutions.

- **Execution-Focused Engineering Team**

Hands-on engineering approach combining practical site experience with design capability, ensuring reliable project implementation.

Fire Protection Projects



VPSTEC provides complete **Fire Protection Systems and Industrial Water Handling Solutions**, ensuring plant safety, operational reliability, and full statutory compliance for industrial facilities.

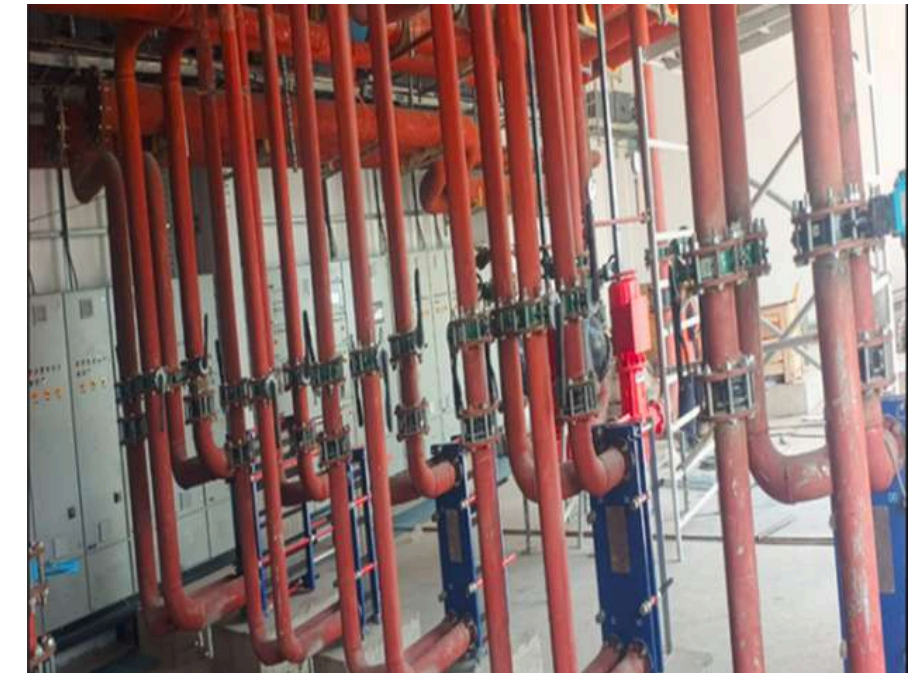


◆ Scope of Work:

- Fire detection, Hydrant & Sprinkler Systems
- Fire Pump House Installation (Main, Jockey & Standby Pumps)
- Water storage tanks and distribution network
- MS pipeline fabrication, erection, and testing
- Complete fabrication & installation with commissioning

◆ Standards & Compliance :

Designed and executed as per **IS Standards; IS 13039, IS 15105, IS 15301 , IS 2189** and **NBC Fire Safety Norms 2016 – Part 4: Fire & Life Safety**; to ensure reliable emergency response and enhanced plant safety.



Water Circulation Systems



VPSTEC designs and executes **high-performance Water Circulation Systems** that ensure reliable cooling, process stability, and efficient water management for industrial operations

◆ Scope of Execution:

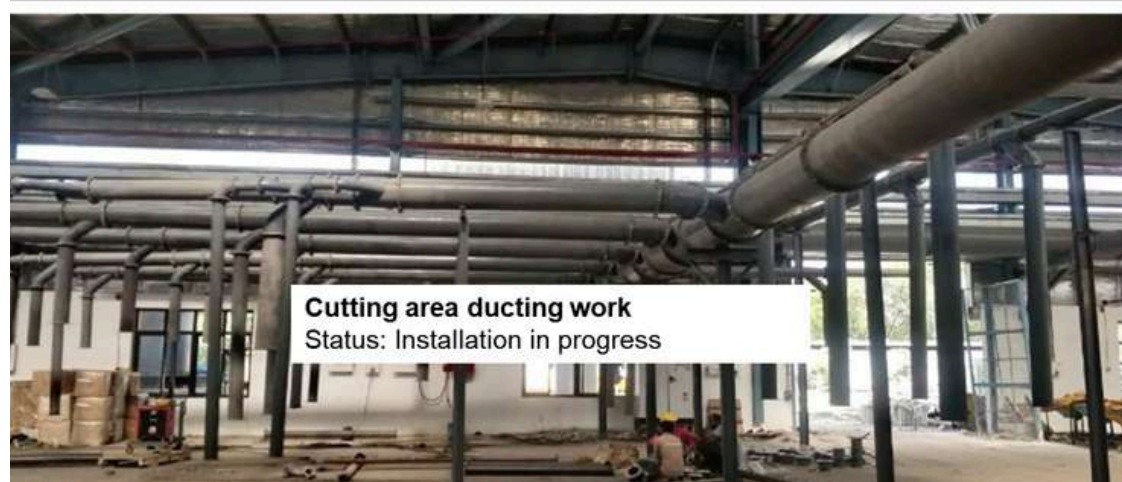
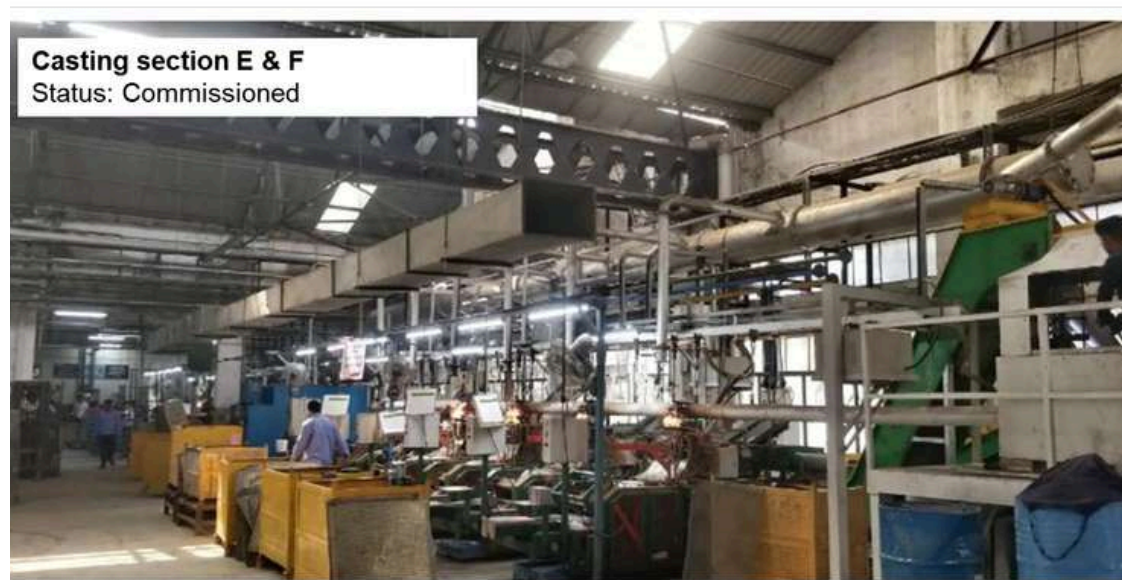
- Engineering design **tailored** to process requirements
- Pump installation with integrated piping networks
- Insulated pipelines for effective temperature control
- Integration of **Cooling Towers, Chillers & Heat Exchangers**
- Valves, strainers and flow control assemblies
- Complete fabrication, installation, testing & commissioning

◆ Operational Advantages:

- Optimized flow distribution and energy efficiency
- Reliable cooling performance and process continuity
- Designed for **safe, stable and long-term plant operation**



Machines & Utilities Installations



VPSTEC provides **complete installation and integration services** for industrial machinery and utility systems, ensuring precise alignment, safe commissioning, and reliable plant start-up.

◆ Scope Includes:

- Machine **shifting, positioning & precision alignment**
- Foundation **checking & grouting**
- **Installation** of production machinery and process equipment
- Utility connections – **power, water, air, steam, gas**
- Piping, cabling & instrumentation integration
- Trial run, testing & performance verification

◆ Operational Advantages:

- Smooth system integration and faster commissioning
- Reduced downtime during installation and startup
- Reliable and efficient plant operations

HVAC & Cooling Tower Projects



VPSTEC delivers **turnkey Cooling Tower solutions** covering complete engineering, supply, installation, and commissioning for industrial cooling applications.

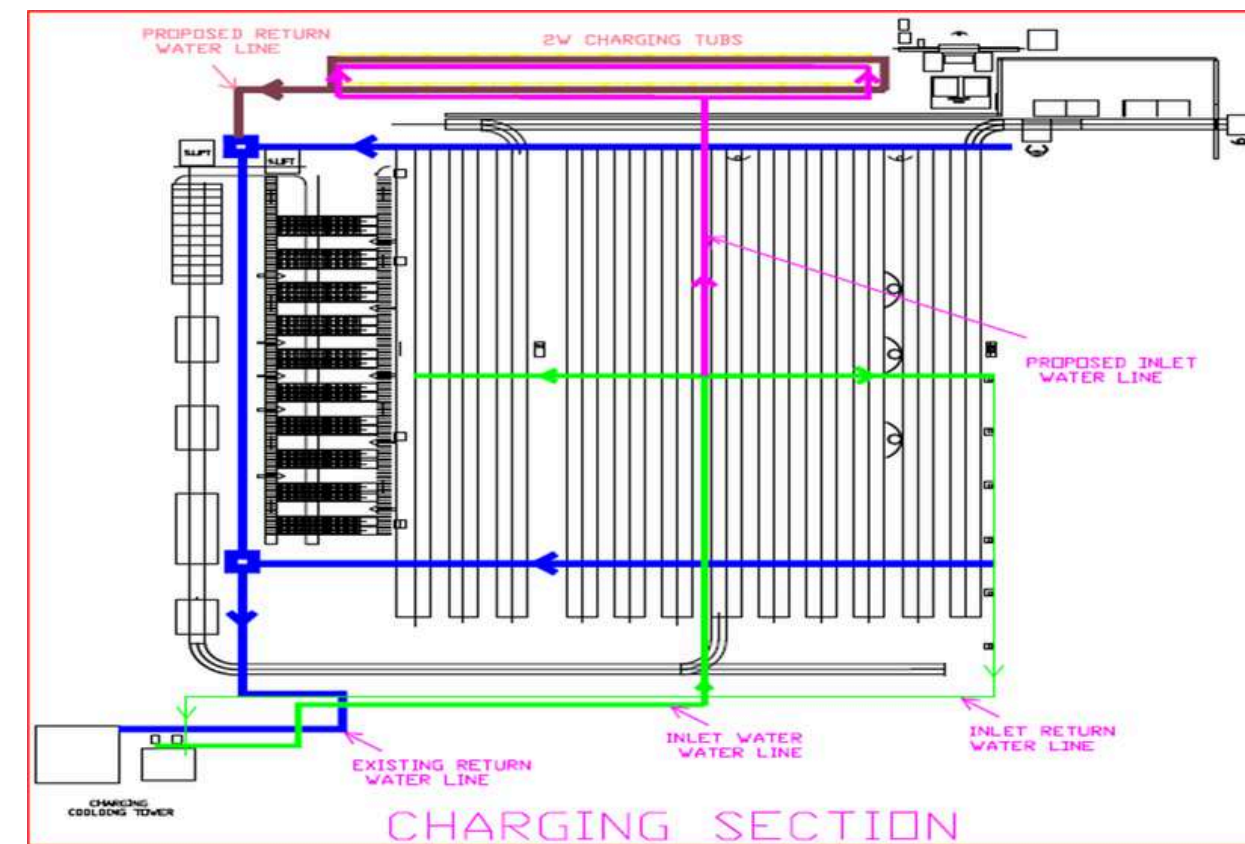
◆ Scope of Work:

- **Design** & detailed engineering
- Manufacturing and **equipment supply**
- Mechanical **installation** and erection
- Testing, balancing & final **commissioning**

◆ System Advantages:

- Efficient heat rejection and optimized water circulation
- Energy-efficient and reliable long-term operation
- Designed in compliance with **industry safety and environmental standards**

Cooling Tower Capacity – 200TR,
Motor (hot well) – 15Hp–02 no's,
1 cold well – 15Hp–02 no's,
fan motor – 1hp



HVAC & Cooling Tower Projects



6 Cell Design – 1544 Cmh



Single Cell Design



4 Cell Cooling Towers

Cooling Tower Systems Delivered & Installed

Wet Scrubber Systems With Ducting



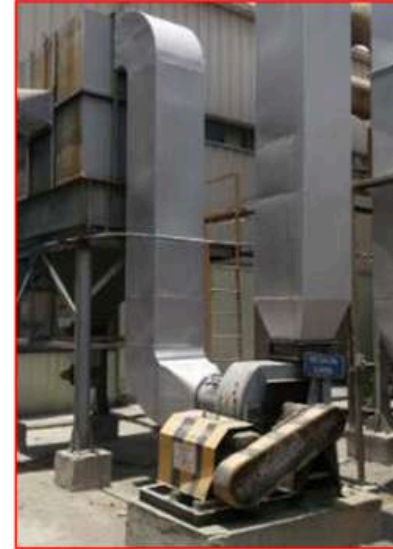
VPSTEC delivers complete **Wet Scrubber Systems** with integrated ducting networks for effective control of industrial fumes, gases, and particulate emissions.

Scope of Execution:

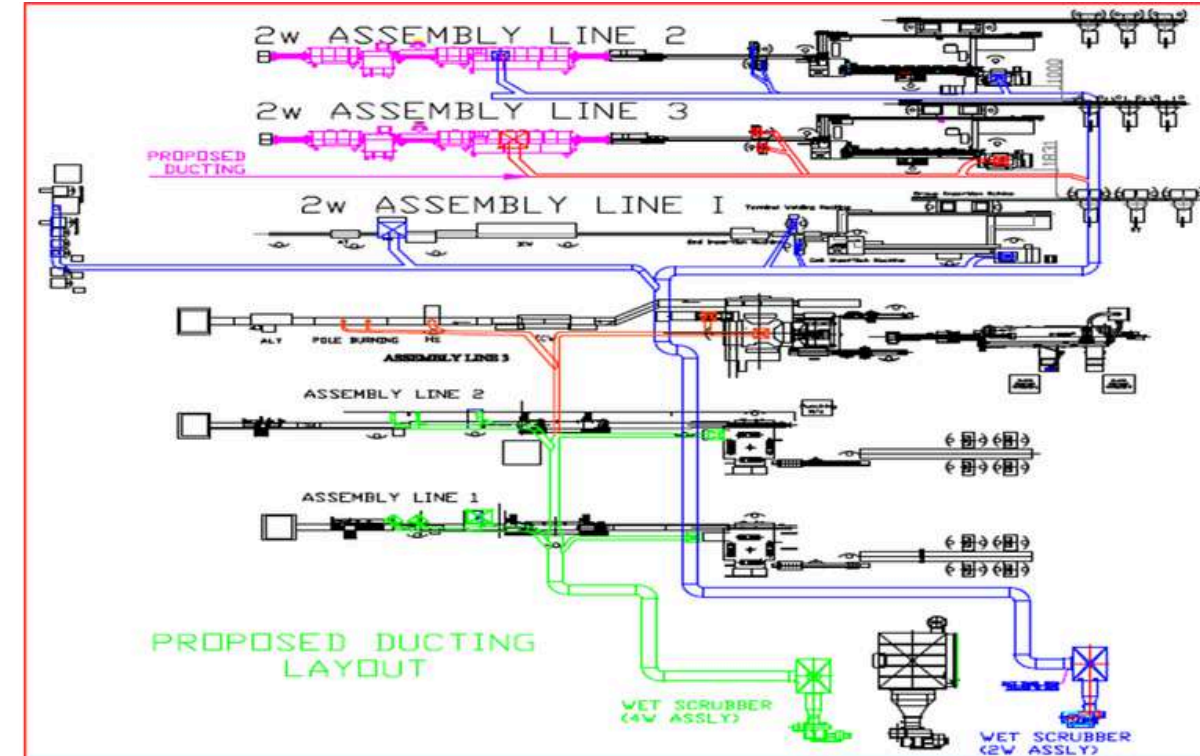
- Process **design** and system capacity engineering
- Wet Scrubber units – **FRP / MS / PP construction**
- Blower and exhaust fan selection & installation
- Acid/alkali resistant ducting – FRP / MS / PP / PVC
- Chimney / emission stack fabrication & erection
- Recirculation system with pumps and tanks
- Control panel & instrumentation with operational automation
- Testing, performance validation & commissioning

System Benefits:

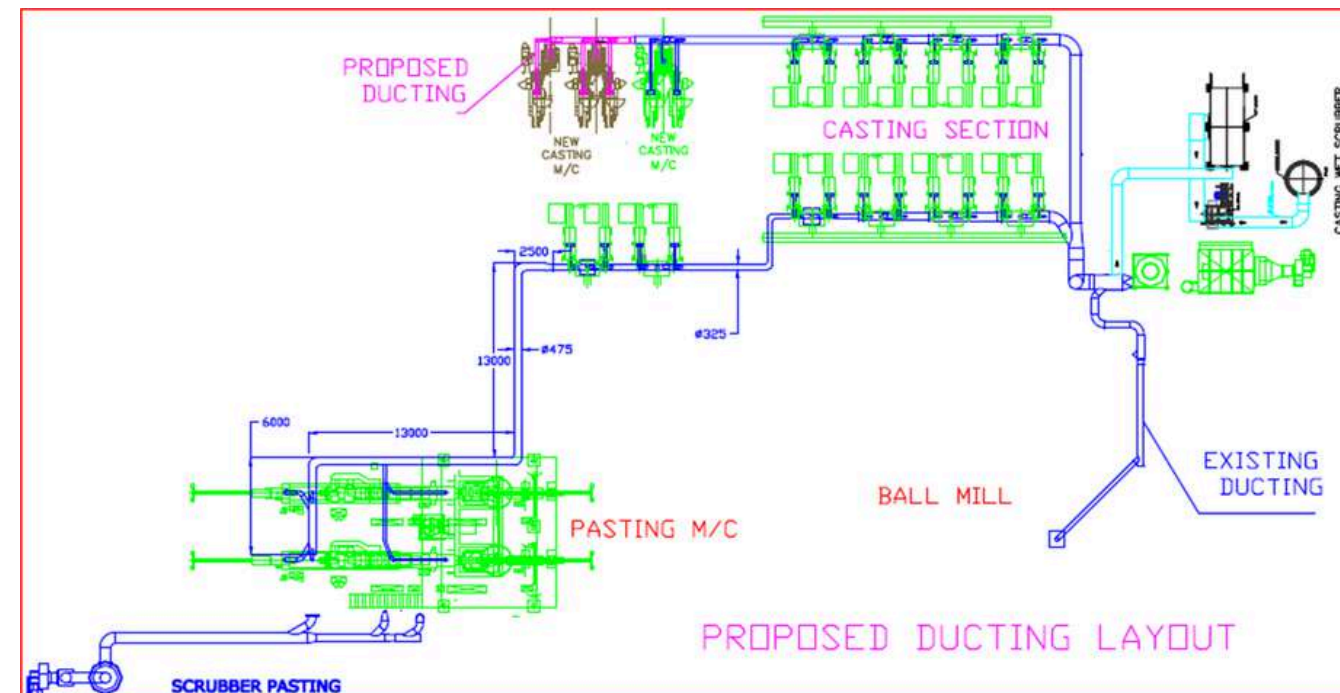
- Effective removal of hazardous vapors and particulates
- Compliance with environmental and **pollution control norms**
- Improved workplace safety and air quality
- **Reliable, long-term** operational performance



❖ Flow Rate - 12000CMH,
Motor - 25Hp &
1455RPM, Blower fan -
1500RPM



❖ Flow Rate - 12000CMH,
Motor - 25Hp &
1455RPM, Blower fan -
1500RPM



❖ Flow Rate - 40000CMH, Motor - 75Hp &
1460RPM, Blower fan - 916RPM

Pollution Control Projects



Our **Pollution Control Projects** are designed to ensure a clean, safe, regulatory compliance, workplace safety, and efficient industrial operations

◆ **System Scope:**
Turnkey Design, Supply, Installation, and Commissioning of pollution control systems

- High-efficiency **Dust Collector Systems** with engineered ducting
- Industrial Emission Stacks up to **30 m height**, Stack Emission Monitoring and Compliance Support as per pollution control norms
- Effective **dust extraction and filtration** for cleaner plant environments
- Water Scrubbing Systems (**Wet Scrubbers**) for effective removal of gases, fumes, and fine particulate matter
- Acid Mist Scrubbing Systems, Industrial Fume Extraction Systems, Cyclone Separators
- Ducting & Hood Design
- Compliance with **environmental and pollution control** standards

◆ **Fresh Air Systems (FAS):**

- Fresh air supply systems for **10–12 Air Changes per Hour (ACH)**
- Ensures **healthy indoor air quality** and safe working conditions

Water Treatment Plant Projects



ETP | STP | ZLD Systems

VPSTEC delivers turnkey **Water Treatment Plant solutions** ensuring regulatory compliance, water recovery, and sustainable industrial operations

◆ Scope of Solutions:

- **Effluent Treatment Plants (ETP)** – physico-chemical & biological treatment, clarification, sludge handling and treated water reuse/discharge
- **Zero Liquid Discharge (ZLD)** – integrated recovery systems with **UF, RO, MEE / ATFD** for maximum water recycling
- **Sewage Treatment Plants (STP)** – advanced biological treatment (**MBBR / SBR / ASP**) for domestic wastewater
- Complete **design, supply, installation, testing & commissioning**

◆ Key Benefits :

- Compliance with environmental regulations
- Maximum water recovery and reuse
- Sustainable and efficient plant operation

ETP – Effluent Treatment Plant



ZLD – Zero Liquid Discharge Plant



Treating industrial waste water before it is discharged into the environment or reused

ZLD Plants



RO Plant - installed and commissioned

Design, engineering, supply, installation, testing, and commissioning of complete **ZLD systems** including

- ◆ **Pre-treatment, UF, RO, MEE/ATFD, condensate recovery, and salt handling units.**
- ◆ **Project Outcome :**
 - Maximum water recovery and reuse
 - Compliance with Zero Liquid Discharge (ZLD) norms
 - Optimized and energy-efficient plant performance



Filter Press System Projects



PASTING PIT



TUMBLING UNIT



PIT (03 NO'S)



PUMP



Filter Press System

◆ System Scope :

- Sludge conditioning pits with agitators for uniform slurry consistency
- **AOD feed pumps** for controlled sludge transfer
- **Recessed plate Filter Press** for high-efficiency sludge dewatering
- Integrated piping, fabrication, and system installation
- **Screw Press** Systems for sludge dewatering in ETP and wastewater treatment plants - up to 3% Moisture.

◆ Operational Benefits:

- Eliminates manual sludge handling
- Enhances **operational safety and process efficiency**
- Reliable and efficient sludge management for continuous plant operations

Electrical Projects



TRANSFORMERS



VPSTEC designs and executes **reliable industrial electrical power distribution systems**, ensuring safe, efficient, and uninterrupted power supply for plant operations.

◆ Scope of Execution:

- Transformer Installation – selection and installation of oil-cooled or dry-type transformers including foundation, earthing, and cable termination
- Power Distribution Boards (PDBs) – floor/area-wise power distribution with load segregation, circuit protection, and MCB/MCCB/ACB systems
- HT/LT Power Distribution Systems including panels, busbars, and distribution networks
- Cable Laying & Termination – structured routing through cable trays with proper termination practices
- Pre-commissioning Testing, Energization & System Validation

◆ Engineering Capabilities:

- Electrical load calculations and system design
- Cable sizing, routing, and termination engineering
- Earthing and lightning protection systems
- Testing, commissioning, and statutory compliance

◆ Compliance & Standards

- Compliance with IS Standards, Electrical Inspectorate regulations, and industrial safety norms.

◆ Outcome:

Safe, reliable, and energy-efficient power distribution ensuring uninterrupted plant operations.

PDB PANELS



Electrical Projects



VPSTEC delivers **comprehensive Electrical Infrastructure Solutions** for industrial and commercial facilities, covering complete engineering through commissioning.

◆ Scope of Execution:

- **LT Panel Installation** – reliable low-voltage power distribution systems
- **Bus Duct Systems** – sandwich type / air-insulated bus ducts for transformer-to-panel connectivity and compact power distribution
- **APFC Panels (Automatic Power Factor Control)** – capacitor bank design, harmonic filters, and power factor correction

◆ Operational Benefits:

- Improved **energy efficiency and optimized power utilization**
- Compliance with **statutory power factor** norms
- Reduction in electrical penalties and enhanced system reliability



LT PANEL INSTALLATION WORK



Industrial Piping Projects



VPSTEC delivers complete **Industrial Piping and Gas Distribution** Systems engineered for safety, operational reliability, and compliance with statutory and PESO requirements

◆ Scope of Work:

- **Industrial Piping Systems** – Process piping (MS / SS / HDPE / GI / PVC/ PP/ PPH) Utility piping for water, air, steam & chemicals; Pipe supports, structures & insulation; Hydro testing & pressure testing
- **Compressor Installation** – Air compressor installation & commissioning, Receiver tanks & air dryer systems; Compressed air distribution network
- **LPG, PNG (Piped Natural Gas) Systems**– Gas metering & safety interlocks; manifold systems; Vaporizers & pressure regulators; Cylinder banks / bulk tank connectivity; Flameproof fittings & safety valves; Gas detection & emergency shut-off systems

◆ Operational Advantages:

- Safe gas handling and pressure-controlled distribution
- Compliance with statutory and PESO safety standards
- Reliable and long-term industrial piping performance

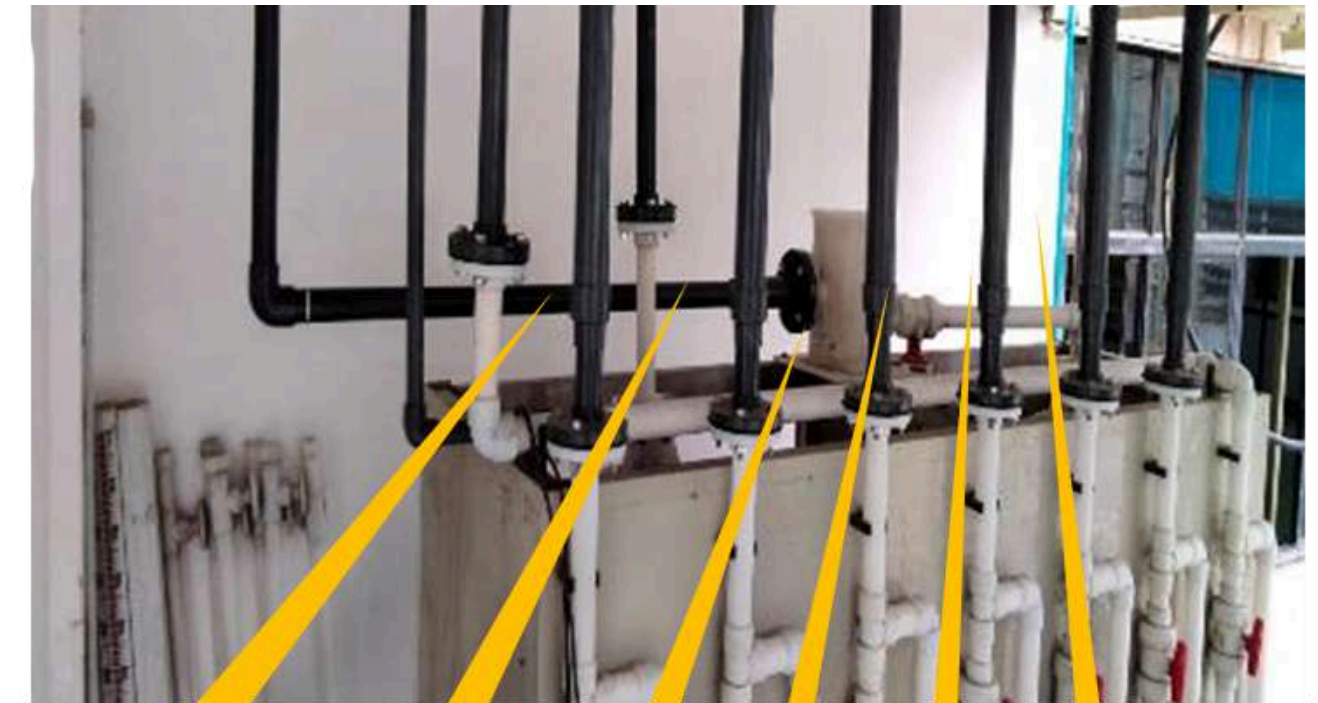
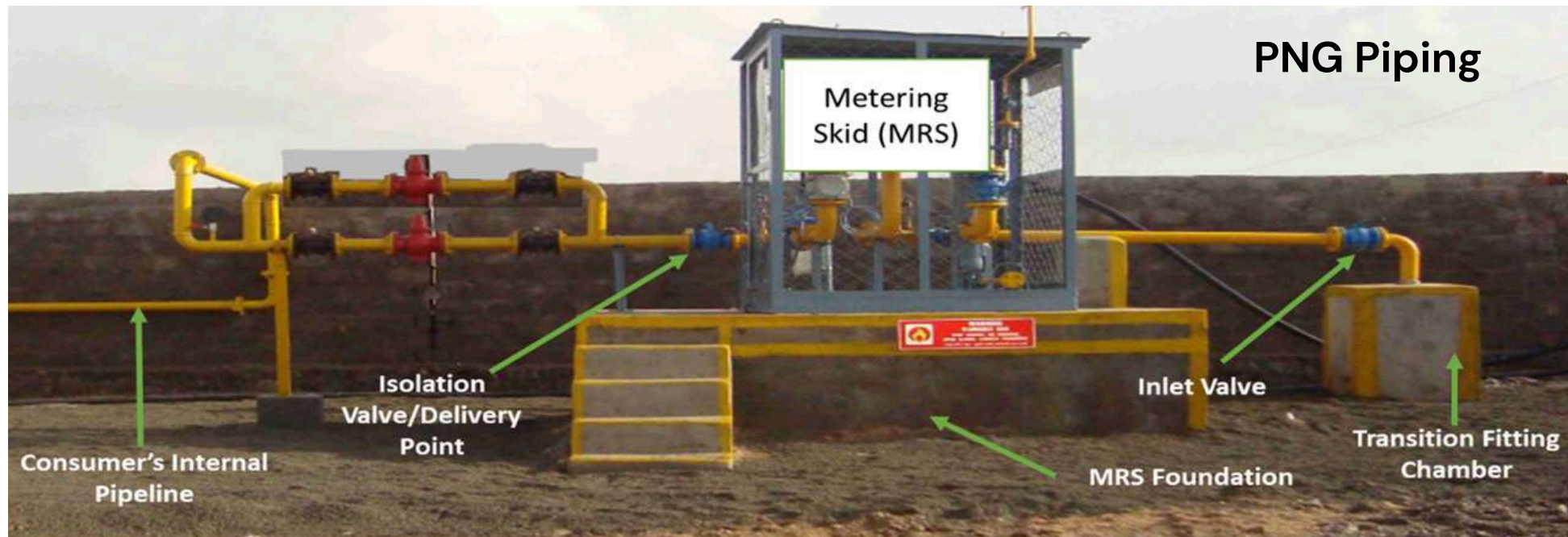


Compressor Installation Work

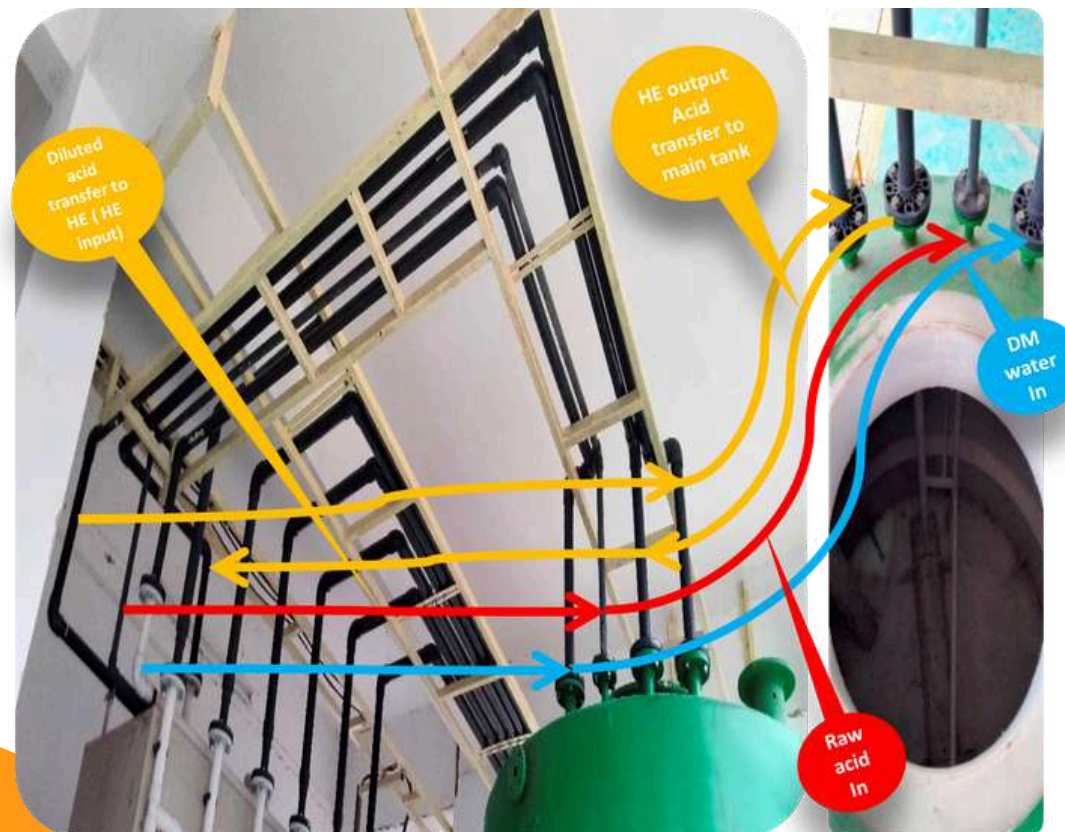


Compressor with Compressed Air Piping

Industrial Piping Projects



ST1 ST2 ST3 ST4 ST5 ST6



Acid proof Tanks & Piping Projects



Oxygen Cylinder Gas Bank

Material Handling Equipment (MHE) Projects



VPSTEC delivers **end-to-end Material Handling Equipment (MHE) solutions** to ensure efficient, safe, and streamlined material movement across industrial operations.

◆ Scope of Execution:

- **Conveyor Systems** – belt, roller, chain, slat, and screw conveyors
- **Bucket Elevators** and inclined conveying systems
- Assembly, packing, and loading line conveyors
- Drive systems with **motors, gearboxes, and VFD** controls
- **PLC integration** with safety interlocks
- Structural fabrication, installation, testing, and commissioning

◆ Scope of Execution:

- Improved productivity and reduced manual handling
- Smooth and reliable material flow across processes
- Enhanced operational efficiency supporting **lean manufacturing practices**

Industrial Flooring Projects



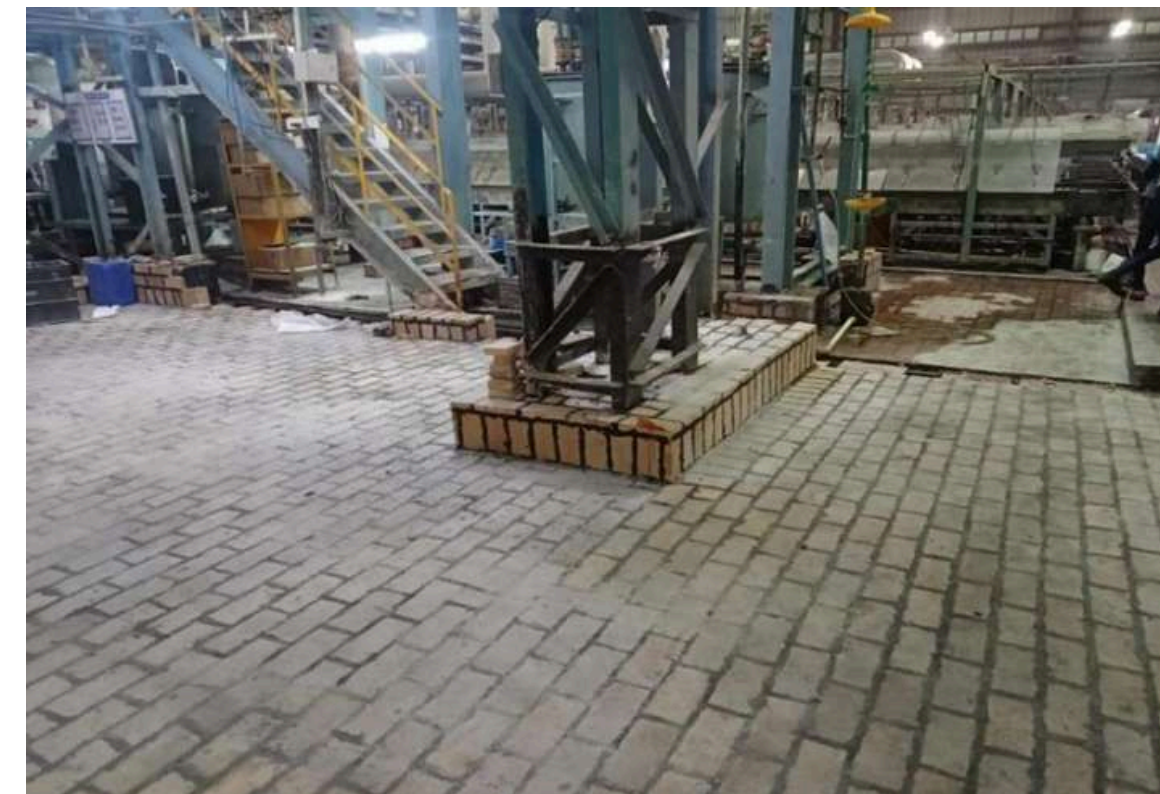
VPSTEC delivers **specialized Industrial Flooring Solutions** engineered for heavy-duty operations and chemically aggressive environments.

◆ Scope of Execution:

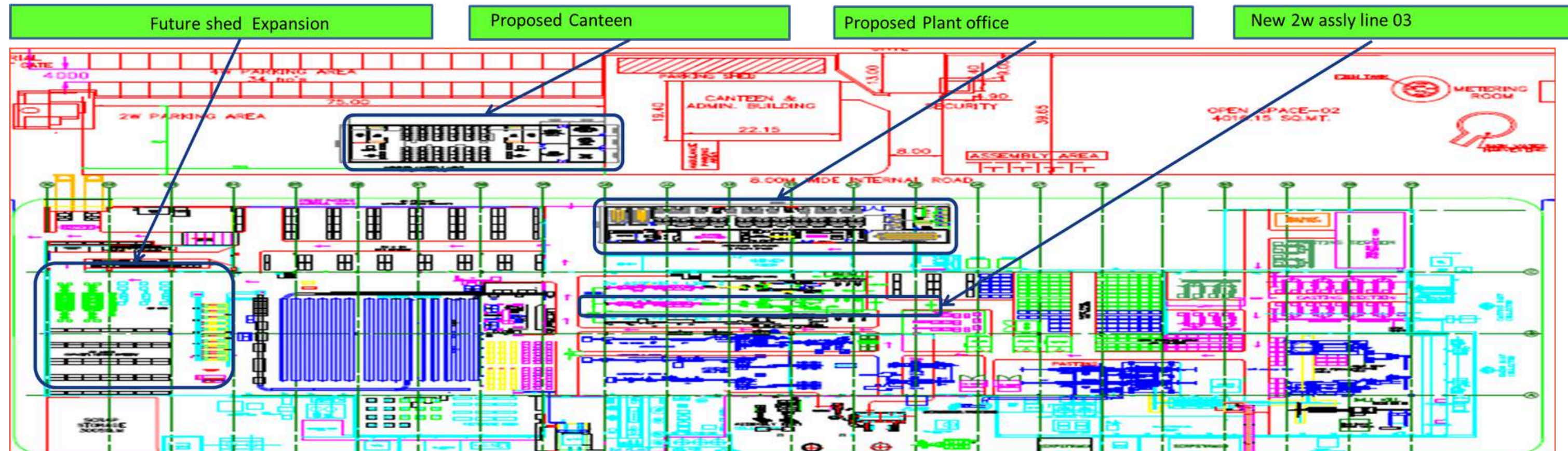
- **Acid Proof Flooring** – resin and chemical-resistant coating systems
- **Acid Proof Brick Flooring** for high corrosion environments
- Acid Proof **Brick Wall Cladding** for process areas
- **PU / Epoxy** Industrial Flooring Systems
- Surface preparation, leveling, and joint treatment
- Quality testing and system validation

◆ Scope of Execution:

- High chemical resistance and structural durability
- Superior load-bearing performance
- Long service life for safe and compliant industrial operations



Plant Layout Design Projects



We provide **Plant Layout Engineering services** to optimize space utilization, material flow, safety, and overall operational efficiency.

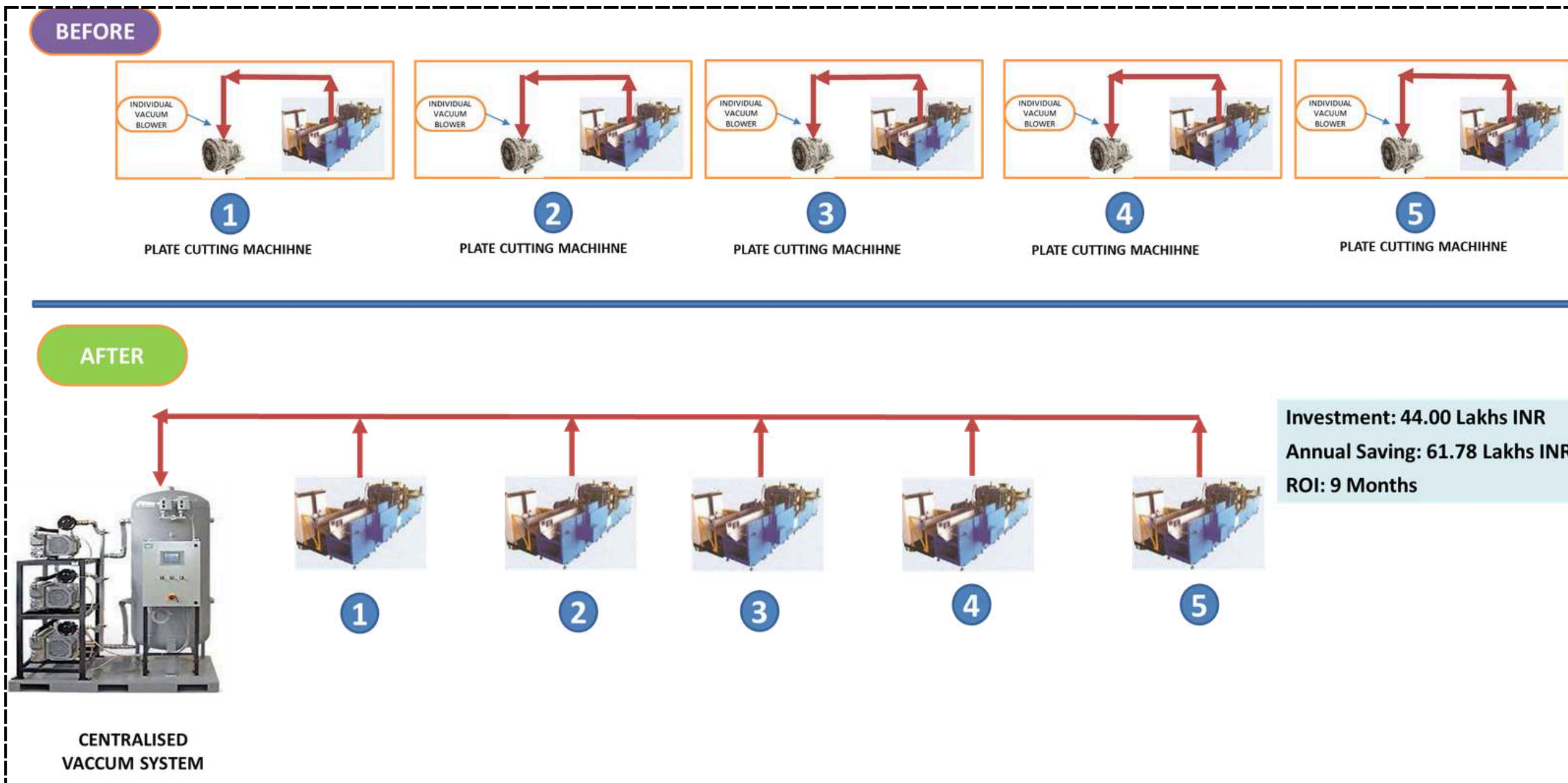
◆ Scope of Execution :

- Conceptual and layout planning for **Greenfield & Brownfield** projects
- Process flow optimization and **equipment positioning**
- Utility routing and infrastructure planning
- Material movement planning with **MHE integration**
- Safety **compliance and statutory** considerations
- Provision for **future plant expansion**

◆ Operational Advantages :

- Optimized space utilization and streamlined material flow
- Reduced bottlenecks and improved productivity
- Efficient coordination between production, utilities, and support systems

Energy Saving Projects



VPSTEC successfully implemented an **Energy Optimization Initiative** to reduce power consumption, enhance system efficiency, and improve overall plant performance.

Project Outcome:

- Significant reduction in **energy consumption and operating costs**
- Improved **operational efficiency** and sustainability
- Enhanced **reliability** of plant utility systems

Energy-Efficient Centralized Vacuum System :

- Implementation of an **Energy-Efficient Centralized Vacuum System** replacing multiple standalone pumps
- **VFD-controlled demand-based operation** with automatic load sharing and standby configuration
- Reduced energy consumption, heat generation, and maintenance requirements
- Improved system reliability with **real-time performance monitoring**

Additional Energy Efficiency Measures :

- **APFC system implementation** for power factor optimization
- High-efficiency motor upgrades with VFD retrofitting
- **LED lighting upgrades** across operational areas
- Compressed air system optimization and leak reduction



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