

»»» Your One-Stop Solution for Boiler & Power Plant Needs



Dehu Group of Companies



www.dehu.in

About Us



At Dehu Engineering (India) Private Limited, we take pride in being a multi-product manufacturing company, delivering a complete range of Boiler and Power Plant solutions under one roof. With over 18 years of expertise in the industry, we have become a trusted partner for industries seeking durability, performance and efficiency in their operations.

Our product portfolio covers high-pressure and non-pressure boiler parts, pollution control systems, site service installation, erection & fabrication, spares and maintenance services—all designed to meet the toughest industry standards.

We are an ASME (S, U, R) Certified, IBR approved and ISO accredited company, ensuring that every product and service we deliver meets stringent global quality benchmarks.

Driven by innovation, backed by certifications and trusted by industry leaders, Dehu Engineering continues to shape the future of boiler and power plant solutions with uncompromising quality and reliability.

Pressure Parts



- Steam Drum
- Water Drum
- Studded Bed Coil
- Bed Coil Assembly
- Studded Bed Coil
- Super Heater Coil
- Economiser Coil
- Economiser Coil Assembly
- Evaporator Coil Header
- Fin Type Heat Exchanger
- Heat Exchanger
- Heat Exchanger Tube Bundle
- Membrane Panels
- Waterwall Panel

- Waterwall Manhole Opening
- Waterwall Assembly
- Bank Tube
- Straight Studded Tube
- Finned Tube
- Blow Down Tank
- IBR Bend
- Down Comers
- Pressure Part Assembly
- Gas Fired Boiler
- Combo Package Type Boiler
- Package Type Boiler
- Bio-Mass Boiler

Boilers



Gas Fired Boiler

Designed for efficiency and compactness, our Gas Fired Boilers ensure quick steam generation with clean combustion. Ideal for industries seeking low emissions and reduced maintenance, they deliver uniform heat transfer through advanced burner technology. These boilers are best suited for process heating, offering reliability and eco-friendly performance.



Combo Package Type Boiler

The Combo Package Boiler combines the advantages of oil/gas and solid fuel firing systems. Its dual-firing flexibility allows industries to switch fuels based on availability and cost. Engineered for optimum efficiency, it ensures continuous operation with minimal downtime a smart solution for modern energy needs.



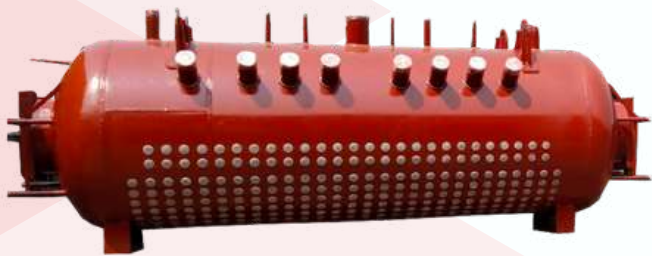
Package Type Boiler

A compact, factory-assembled unit that delivers ready to install steam generation solutions. Package Type Boilers offer easy maintenance and consistent output, designed for quick commissioning. Their integrated design ensures reliability, safety and long service life making them ideal for small to medium-scale process industries.



Bio-Mass Boiler

Built for zero-emission operations, our Electric Boilers offer precise steam generation without combustion. They're perfect for facilities requiring clean and silent operations, such as food, pharmaceuticals and textiles. With compact design and efficient control systems, they ensure instant heat response and high thermal efficiency.



Steam Drum

The heart of the boiler, the Steam Drum separates steam from water in the circulation loop. It stores steam generated in the furnace and provides a steady supply for superheating or process use. Its design ensures stable pressure control, efficient moisture separation and smooth boiler operation.



Water Drum

Located at the lower section of the boiler, the Water Drum collects and distributes water to the evaporator tubes. It ensures proper circulation, uniform heating and thermal stability within the pressure circuit, enabling safe and efficient steam generation under all load conditions.



Studded Bed Coil

Installed in the fluidized bed combustion zone, these coils form the primary heat-absorbing surface. Studded design enhances heat transfer and minimizes erosion caused by bed materials. They play a vital role in generating steam efficiently from high-temperature combustion gases.



Bed Coil Assembly

Installed within the fluidized bed combustion zone, these coils serve as the primary heat-absorbing surface. Their studded design enhances heat transfer efficiency while reducing erosion from bed materials. They play a crucial role in efficiently generating steam from high-temperature combustion gases.



Super Heater Coil

Superheater Coils increase the temperature of saturated steam, improving turbine performance and thermal efficiency. Fabricated from alloy steels suitable for high temperature service, they ensure longer life, uniform heating and reduced moisture content in the steam circuit.



Economiser Coil

Positioned in the flue gas path, the Economiser Coil recovers waste heat to preheat feedwater before it enters the boiler. This reduces fuel consumption, enhances efficiency and minimizes operational costs a key component for energy conservation.



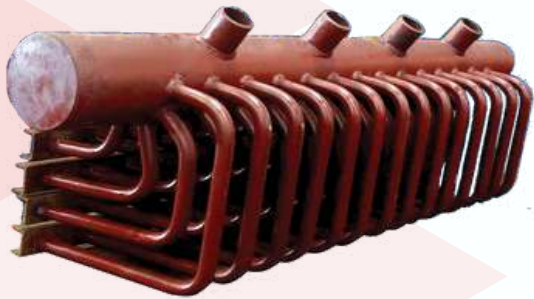
Economiser Coil Assembly

Located in the flue gas path, the Economiser Coil captures waste heat to preheat feedwater before it enters the boiler. This process lowers fuel consumption, boosts boiler efficiency and reduces operating costs making it a vital element for energy conservation.



Economiser Header

Our Economiser Headers, crucial components for improving the efficiency of your boiler system by recovering waste heat from flue gases. Our headers are designed to maintain uniform fluid flow across all tubes, ensuring maximum heat recovery.



Evaporator Coil Header

Evaporator Coils absorb radiant heat from combustion gases to convert feedwater into steam. The headers distribute flow evenly across circuits, ensuring reliable operation, stable steam output and optimized heat utilization within the boiler pressure system.



Fin Type Heat Exchanger

These exchangers transfer heat efficiently between process fluids and gases. Designed for compactness and high surface area, they are essential for waste heat recovery and temperature regulation in various boiler circuits.



Heat Exchanger

These heat exchangers ensure efficient heat transfer between process fluids and gases. Engineered for compact design and maximum surface area, they play a crucial role in waste heat recovery and temperature control across diverse boiler systems.



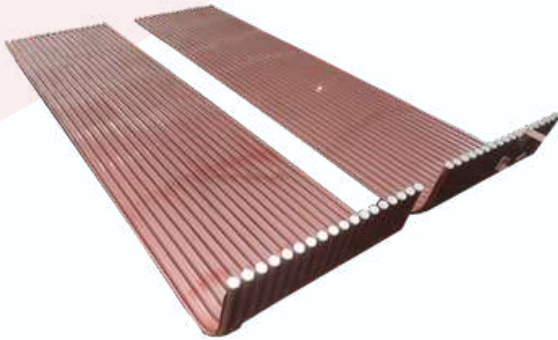
Heat Exchanger Tube Bundle

These tube bundles facilitate efficient heat transfer between process fluids and gases. Designed with a compact layout and high surface area, they are integral to waste heat recovery and precise temperature regulation within boiler systems.



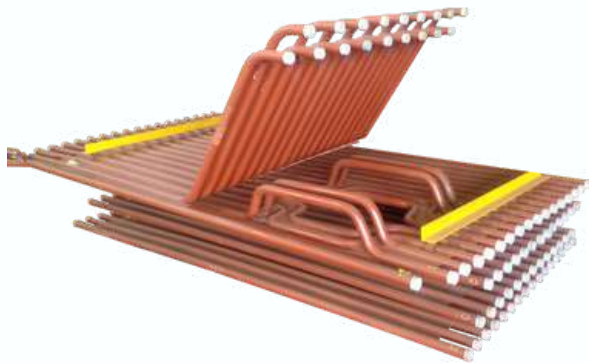
Membrane Panels

Forming the furnace enclosure, these panels absorb radiant heat and protect the refractory structure. Their gas-tight membrane construction minimizes heat loss and enhances boiler efficiency, while offering improved strength and easy maintenance.



Waterwall Panel

Forming the furnace enclosure, the Waterwall Panels absorb intense radiant heat while protecting the refractory structure. Their gas tight membrane design minimizes heat loss, enhances boiler efficiency and provides superior strength with simplified maintenance.



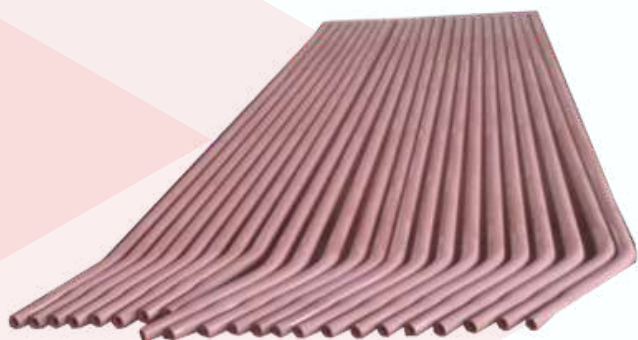
Waterwall Manhole Opening

The Waterwall Manhole Opening provides essential access for internal inspection, maintenance and cleaning of boiler waterwalls. Designed to withstand high pressure and temperature, it ensures safe entry without compromising system integrity. Its precision-sealed construction maintains gas-tight operation while enabling quick maintenance accessibility within the furnace enclosure.



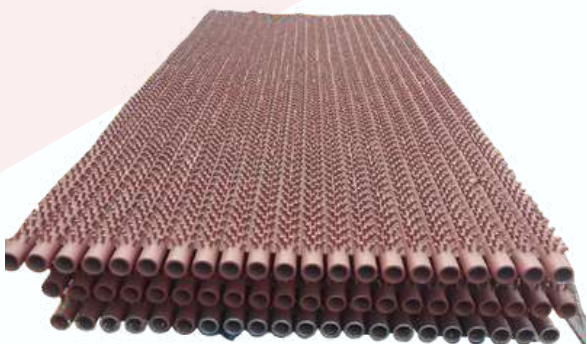
Waterwall Assembly

The Waterwall Assembly forms the primary heat absorbing enclosure of the boiler furnace. Comprising welded membrane panels, it absorbs radiant heat directly from combustion gases. It enhances thermal efficiency, protects the refractory and ensures gas-tight operation. Engineered for durability and low maintenance, it contributes significantly to efficient boiler performance.



Bank Tube

Bank Tubes connect the steam and water drums, forming the main evaporative surface in the boiler's convective zone. They ensure efficient heat transfer from flue gases to water. Designed for uniform flow and temperature distribution, they maintain consistent steam generation and improve the overall heat recovery efficiency.



Straight Studded Tube

Straight Studded Tubes are designed with welded studs to increase heat absorption surface area and resist erosion. Widely used in FBC and CFBC boilers, they enhance heat transfer and withstand high-velocity gas flows. Their rugged design ensures longevity and steady thermal performance in demanding combustion zones.



Finned Tube

Finned Tubes feature extended metal surfaces (fins) that maximize heat transfer between gases and fluids. Commonly used in air preheaters and economisers, they provide compactness and higher efficiency. Manufactured with precision welding, they ensure optimal performance, durability and resistance to thermal stresses under high-temperature service.



Blow Down Tank

These vessels manage condensate recovery, air storage and blowdown water discharge. They improve water quality, conserve energy and ensure system safety through proper pressure and temperature management.



IBR Bend

IBR Bends are precision-formed to ensure strength and compliance with Indian Boiler Regulations, supporting leak-free, durable connections in the pressure circuit.



Down Comers

Downcomers provide natural water circulation from the steam drum to the water drum, maintaining flow balance.



Pressure Part Assembly

Comprising drums, coils and headers, the Pressure Parts Assembly integrates all critical components of the steam-water system. Each assembly is engineered for precision alignment, leak-proof performance and reliable operation under high temperature and pressure.

Non Pressure Parts



- APH Tube Sheet
- Drum Internal
- Fabric/Non Metallic Expansion Bellow
- Chimney
- Expansion Bellow
- Dumping Grate
- Tanks
- Air Receiver Tank
- Condensate Pump
- Duct Assembly
- ID Fan
- FD Fan
- Bag Filter
- Sparger Header
- Sample Cooler
- Ash Silo
- Galvanized Handrails
- Travelling Grate
- Air Preheater
- Air Preheaters Assembly
- Aerofoil
- Tubular Air Preheater
- Silencer
- Double Screw Feeder
- Pocket Feeder
- Yok Assembly
- Hopper
- Bagasse Feeder
- Sliding Gate
- Top Support Siling Rods
- Bunker
- Base Frame
- Damper
- Fuel Tunnel Assembly
- Bend Tube
- APH Tube
- Combustion Chamber
- Miter Bend
- Pneumatic Spreader
- Dryer
- Air Box
- Gratings
- Bale Breaker
- Inlet Guide Vane



APH Tube Sheet

Air Preheaters recover residual heat from flue gases to preheat combustion air. This boosts boiler efficiency, reduces fuel usage and enhances heat transfer. Tubular designs ensure low maintenance, compactness and durability, contributing significantly to overall energy savings.



Drum Internal

Drum Internals consist of separators, demisters and scrubbers that ensure the removal of water droplets from steam. They improve steam quality, reduce carryover and maintain consistent boiler efficiency. Engineered for precise separation and durability, these internals safeguard turbines and process systems from moisture-related damage.



Fabric/Non Metallic Expansion Bellow

These flexible connectors absorb thermal expansion, vibration and mechanical stresses in ducts and piping systems. Both metallic and fabric types offer durability and flexibility, protecting the boiler structure from fatigue and deformation.



Chimney

The chimney safely expels flue gases into the atmosphere, maintaining proper draft and compliance with environmental standards. Built from high grade steel, it ensures long service life, corrosion resistance and stable structural integrity.



Expansion Bellow

These flexible connectors absorb thermal expansion, vibration and mechanical stresses in ducts and piping systems. Both metallic and fabric types offer durability and flexibility, protecting the boiler structure from fatigue and deformation.



Dumping Grate

The Dumping Grate facilitates controlled combustion by supporting solid fuel burning in the furnace bed. It allows easy discharge of ash and clinker without interrupting boiler operation. Built from high temperature resistant alloy castings, it ensures long service life, minimal maintenance and efficient combustion for various biomass and coal-fired applications.



Tanks

These tanks handle condensate recovery, air storage and blowdown water discharge with precision. They enhance water quality, promote energy conservation and ensure system safety through effective pressure and temperature control.



Air Receiver Tank

The Air Receiver Tank stores compressed air for steady system operation and optimal pressure control. It helps manage condensate, enhance air quality and maintain energy efficiency, ensuring reliable performance and system safety.



Condensate Pump

The Air Condensate Pump efficiently removes condensate from compressed air systems, ensuring smooth operation and preventing water related damage. It improves system reliability, maintains optimal performance and supports energy-efficient operation.



Duct Assembly

Duct assemblies carry hot gases and air throughout the boiler and heat recovery systems. Their heavy-duty design reduces leakage and turbulence, maintaining consistent flow and thermal efficiency across the boiler circuit.



ID Fan

ID Fans extract flue gases from the boiler and discharge them through the chimney. By maintaining required draft conditions, they stabilize furnace pressure, ensure smooth gas flow and improve overall combustion efficiency.



FD Fan

FD Fans supply combustion air under controlled pressure, ensuring complete fuel burning and uniform furnace temperature. Their robust construction and aerodynamic design guarantee quiet, efficient and reliable performance in all boiler applications.



Bag Filter

Air pollution control units that capture dust and ash particles from flue gases. They ensure cleaner emissions, regulatory compliance and prolonged fan and duct system life.



Sparger Header

Sparger headers distribute steam evenly in deaerators or process tanks, while sample coolers enable safe boiler water sampling. Both contribute to maintaining water chemistry and operational safety.



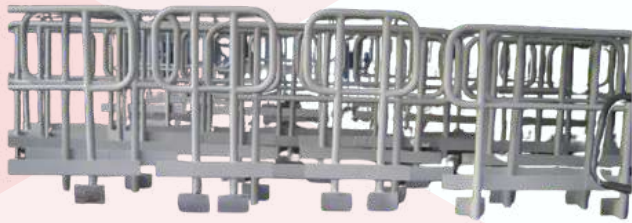
Sample Cooler

The Sample Cooler safely cools high-temperature fluid samples before analysis, ensuring accurate measurements and operator safety. It maintains process integrity, enhances efficiency and supports reliable monitoring in boiler and industrial systems.



Ash Silo

The Ash Silo stores collected ash safely from electrostatic precipitators or bag filters. Designed for bulk storage and controlled discharge, it prevents dust emissions and supports continuous plant operation. Built from corrosion-resistant materials, it ensures safe ash handling, environmental compliance and ease of maintenance.



Galvanized Handrails

Galvanized Handrails provide secure access and safety across platforms and maintenance walkways. Hot-dip galvanization ensures corrosion resistance and long service life in outdoor and high-humidity environments. Designed for strength and easy installation, they meet industrial safety standards while enhancing the aesthetic appeal of plant structures.



Travelling Grate

Travelling Grates automate the movement of fuel across the furnace, ensuring uniform combustion and efficient heat release. The continuous motion helps in consistent ash removal and reduced manual intervention. Ideal for biomass and bagasse-fired boilers, they offer enhanced fuel utilization and smooth operation under fluctuating load conditions.



Air Preheater Assembly

The Air Preheater Assembly captures residual heat from flue gases to preheat combustion air, enhancing boiler efficiency and reducing fuel consumption. Its tubular design offers durability, compactness and low maintenance, making it a key contributor to overall energy savings.



Air Preheaters

Air Preheaters recover residual heat from flue gases to preheat combustion air. This boosts boiler efficiency, reduces fuel usage and enhances heat transfer. Tubular designs ensure low maintenance, compactness and durability, contributing significantly to overall energy savings.



Aerofoil

Aerofoils are aerodynamic components designed to regulate and optimize air or gas flow through ducts, fans or preheaters. Their smooth contour ensures efficient flow with minimal turbulence and pressure drop. Built for strength and precision, they improve combustion air control, reduce energy loss and contribute to overall plant efficiency.



Tubular Air Preheater

The Tubular Air Preheater recovers residual heat from flue gases to preheat combustion air, improving boiler efficiency and lowering fuel consumption. Its robust tubular design ensures durability, compactness and low maintenance, playing a vital role in maximizing energy savings.



Silencer

The Silencer minimizes exhaust noise from safety valves or vent pipes by diffusing high-velocity steam discharge. Engineered with acoustic absorption technology, it reduces sound levels effectively without impeding flow. Constructed from stainless or carbon steel, it ensures durability, low maintenance and compliance with noise regulations.



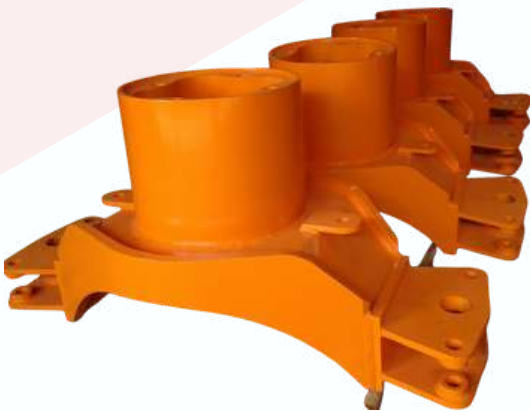
Double Screw Feeder

The Double Screw Feeder provides controlled and continuous feeding of solid fuel into the combustion chamber. Its twin-screw mechanism ensures uniform flow and prevents blockages. Constructed with wear-resistant materials, it offers reliable operation, precise control and consistent fuel distribution, leading to improved combustion performance and fuel economy.



Pocket Feeder

Fuel hoppers and feeders manage material storage and regulated feeding to the furnace. Their design supports bulk handling of biomass, coal or bagasse, ensuring steady combustion and reduced manual intervention.



Yok Assembly

The Yok Assembly supports heavy structural or rotating components such as fans or air preheaters. Designed to maintain alignment and absorb operational stresses, it ensures mechanical stability and vibration control. Fabricated from high strength steel, it provides robust performance and long-lasting structural reliability.



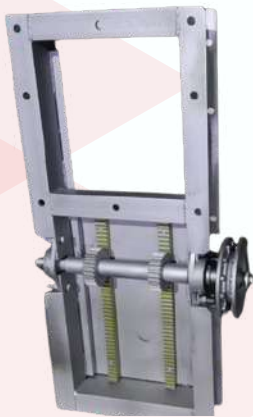
Hopper

The Hopper serves as a temporary storage and controlled discharge unit for solid fuels. It ensures continuous feed to the combustion system while preventing blockages. Designed with steep angles and smooth interiors, it promotes self-flowing material movement, ensuring stable and consistent fuel supply to the furnace.



Bagasse Feeder

The Bagasse Feeder efficiently handles storage and controlled feeding of bagasse into the furnace. Its design supports smooth bulk material handling, ensuring consistent combustion and minimizing the need for manual intervention.



Sliding Gate

The Sliding Gate regulates or isolates material flow in conveying lines or hoppers. It ensures controlled feeding or complete shutoff during maintenance. Built from durable steel with smooth actuation, it operates reliably under high-temperature and dusty environments, ensuring efficient plant operation and safety.



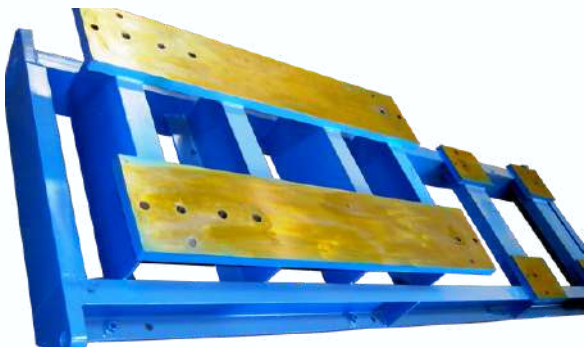
Top Support Siling Rods

Support Bars and Siling Rods maintain mechanical alignment in coil assemblies, ducts and preheaters. They ensure structural strength, reduce vibration and distribute loads evenly. Manufactured from high-grade steel, they provide long-lasting stability and enhance reliability in high-temperature applications.



Bunker

Fuel Bunkers store bulk materials like coal, bagasse or biomass for continuous boiler operation. Designed with structural strength and optimized geometry, they ensure smooth discharge and reliable feeding. Properly integrated with feeders, they minimize downtime, improve fuel management and support steady combustion throughout the operation cycle.



Base Frame

The Base Frame provides foundational support for heavy assemblies like fans, ducts or fuel feeders. Designed for rigidity and vibration absorption, it ensures perfect alignment and operational stability. Fabricated from structural steel, it enhances equipment longevity and maintains system balance under dynamic conditions.



Damper

Dampers control the airflow and pressure within ducts, balancing combustion and optimizing boiler performance. Designed for precise modulation, they improve energy utilization while ensuring safe and stable furnace operations.



Fuel Tunnel Assembly

The Fuel Tunnel Assembly channels and distributes fuel evenly into the furnace bed. It ensures proper mixing of air and fuel, improving flame stability and combustion efficiency. Designed to handle varying fuel characteristics, it supports uniform heat generation and stable furnace performance in solid fuel boiler systems.



Bend Tube

Bend Tubes are used to route fluid or steam between pressure parts in compact boiler layouts. Precision-formed to exact radii, they ensure smooth flow transitions with minimal pressure drop. Manufactured as per IBR standards, they offer high strength, dimensional accuracy and long-term leak-proof performance.



APH Tube

The APH Tube recovers residual heat from flue gases to preheat combustion air, enhancing boiler efficiency and reducing fuel consumption. Its durable tubular design ensures compactness, low maintenance and reliable performance, contributing significantly to overall energy savings.



Combustion Chamber

The Combustion Chamber forms the core furnace area where fuel burns and releases heat for steam generation. Constructed with waterwall panels or refractory lining, it ensures complete combustion, uniform heat distribution and minimized emissions. Its design promotes stable flame patterns and maximum fuel utilization.



Miter Bend

The Miter Bend connects large-diameter ducts or pipes at custom angles using precision-welded segments. Ideal for gas, air and flue systems, it ensures smooth directional change and reduced pressure loss. Fabricated to IBR standards, it provides strength, durability and flexibility in complex boiler piping layouts.



Pneumatic Spreader

The Pneumatic Spreader ensures even fuel distribution across the furnace bed by using high-velocity air jets. This promotes uniform combustion and prevents fuel accumulation. Its efficient design minimizes unburnt residues, improves thermal efficiency and provides better control over flame intensity and temperature profiles.



Dryer

The Dryer removes moisture from steam or air to improve quality and system efficiency. Commonly used downstream of separators or compressors, it ensures dry, high-quality steam delivery. Designed for reliability and low maintenance, it protects equipment from corrosion and enhances thermal performance.



Air Box

Positioned below the furnace grate, the Air Box distributes primary or secondary air uniformly through nozzles or tuyeres. It ensures complete fuel combustion and stable furnace temperature. Engineered for structural rigidity and thermal resistance, it plays a critical role in maintaining combustion efficiency and emission control.



Gratings

Gratings form the supporting surface for fuel beds in solid-fuel boilers. Made from high-strength alloy castings, they allow uniform air passage from below, promoting complete fuel burn. Their durable construction resists high thermal stresses, ensuring longer service life and efficient combustion performance.



Bale Breaker

The Bale Breaker mechanically opens and loosens compressed biomass or bagasse bales for uniform feeding into conveyors or boilers. It ensures smooth fuel flow, prevents clogging and reduces manual labor. Built with robust rotating shafts and blades, it enhances fuel handling efficiency and consistency.



Inlet Guide Vane

The Inlet Guide Vane regulates and directs gas or air entering cyclones or fans to improve efficiency and control flow. By adjusting the swirl angle, it reduces energy consumption and stabilizes pressure. Designed for robust service, IGVs enhance equipment performance and extend operational life in dust-laden environments.

Other Boiler Spares



Centrifugal Fans

Centrifugal Fans move air or gases by converting rotational energy into pressure. Used as FD, ID or PA fans, they ensure stable airflow for combustion and flue gas handling. Designed for efficiency, low noise and durability, they provide reliable performance across all boiler and industrial ventilation systems.



Axial Fans

Axial Fans push air along the axis of rotation, offering high flow rates with low pressure drop. Ideal for cooling, ventilation and air circulation in boiler houses, they feature lightweight impellers and compact designs. These fans ensure energy-efficient operation and consistent air distribution.



Cyclone Separator

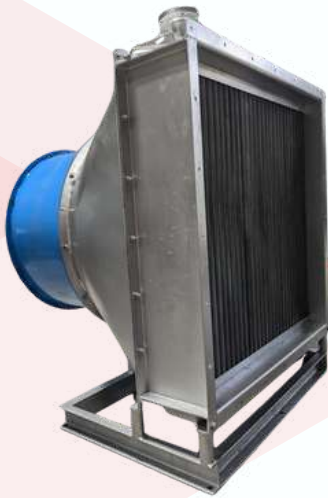
Air pollution control units that capture dust and ash particles from flue gases. They ensure cleaner emissions, regulatory compliance and prolonged fan and duct system life.



Scrubber

The Scrubber effectively removes dust, ash and other pollutants from flue gases, ensuring cleaner emissions and compliance with environmental standards. It enhances air quality while extending the lifespan of fans and duct systems.

Other Boiler Spares



SCAPH

Designed to preheat air using steam, SCAPH enhances combustion efficiency during boiler start-up and low-load operations. It ensures consistent air temperature and reduces fuel consumption.



Drag chain feeder

These feeders convey bulk fuel materials from storage to the furnace using a chain-driven system. Designed for heavy duty performance, they ensure smooth, uninterrupted feeding and minimal spillage. Suitable for biomass, bagasse or coal applications, they enhance fuel-handling efficiency and reduce manual loading efforts.



Metallic Expansion Bellow

These flexible connectors absorb thermal expansion, vibration and mechanical stresses in ducts and piping systems. Both metallic and fabric types offer durability and flexibility, protecting the boiler structure from fatigue and deformation.



Pressure Vessels

Pressure Vessels store or process fluids under high pressure safely. Built to ASME and IBR standards, they feature precise welding, robust materials and rigorous testing. Used in various boiler auxiliaries, they ensure operational safety, long service life and efficient system pressure management.

Other Boiler Spares



Industrial Storage Tanks

Industrial Storage Tanks are designed for safe containment of water, oil or process fluids used in power and boiler plants. Fabricated from quality-tested steel, they ensure corrosion resistance, structural strength and long-term reliability. Each tank is customized to meet volume and pressure requirements, ensuring operational safety and efficiency.



RAV & Pocket Feeder

Fuel hoppers and feeders manage material storage and regulated feeding to the furnace. Their design supports bulk handling of biomass, coal or bagasse, ensuring steady combustion and reduced manual intervention.

Tradings



- Safety Valve
- Steam Trap
- Mouting & Fittings
- Tubes
- Pipes
- Grate Bar
- Orifice Flowmeter
- Fuel Cross
- Air Nozzles
- MDC Cones With IGV
- Ash Feeder for MDC Bottom
- Mixing nozzles
- Cast Iron Blowers
- Pocket Feeder
- Cast Iron Nozzles - For Boiler
- Cluster and Support Bar
- Boiler Pulsating Grate Bars
- Wood Fired Grate Bar
- CI /SS Nozzles
- Fire Door
- Husk Bar
- Single Grate Bar
- Mixing Nozzles internals - 4/ 5 / 6 Inch
- Aerofoil
- HT Motor Starter Body
- Fire Door
- Secondary Air Ducting
- Circular Coil
- Flanges
- Tubes
- Cyclone Separator
- Rotary Air Lock Feeder
- Bagasse Feeder
- Filter
- Fuel Nozzles
- Hydropower Piping
- Support H Type Bar
- Pipe Structure
- Cyclone Inlet Guide Vane
- Cyclone Outlet Guide Vane
- Plates
- Double Block Double Bleed
- Valves
- Rings
- Sensors
- Pressure Guage
- RTD
- Temperature Controller
- Heater Coil
- Pressure Transmitter
- Temperature Indicator
- Temperature Transmitter



Safety Valve

Critical safety and control devices that regulate pressure, prevent water hammer and ensure safe discharge. They form the backbone of boiler operational safety and efficiency.



Steam Trap

Essential safety and control devices that regulate pressure, eliminate water hammer and ensure safe condensate discharge forming the backbone of boiler safety, reliability and efficiency.



Mouting & Fittings

Critical safety and control devices that regulate pressure, prevent water hammer, and ensure safe discharge. They form the backbone of boiler operational safety and efficiency.



Tubes

Essential mechanical components for pressure and non pressure pipelines. Manufactured as per IBR and international standards, they ensure strength, leak proof connections and seamless integration within boiler systems.



Pipes

Essential mechanical components for pressure and non-pressure pipelines. Manufactured as per IBR and international standards, they ensure strength, leak-proof connections and seamless integration within boiler systems.



Grate Bar

Grate Bars provide sturdy support for solid fuel during combustion while allowing proper air circulation from beneath. Engineered from heat-resistant cast iron or stainless steel, they enable efficient fuel burning and effortless ash removal. With a robust, long lasting design, they ensure minimal maintenance and enhanced boiler efficiency.



Orifice Flowmeter

The Orifice Flowmeter measures the rate of flow through a pipe by detecting pressure drop across a calibrated orifice plate. Suitable for steam, gas or liquid applications, it provides accurate readings with minimal maintenance. Its simple, reliable design ensures long term stability and efficiency in process control systems.



Fuel Cross

The Fuel Cross evenly distributes fuel or air-fuel mixture into the combustion chamber. Its symmetrical design ensures balanced flow to each branch, promoting uniform flame and efficient combustion. Fabricated from high grade materials, it resists high temperatures and enhances firing performance in solid and liquid fuel systems.



Air Nozzles

Air Nozzles are designed to regulate and direct airflow for optimal fuel-air mixing, ensuring complete and efficient combustion. Engineered for precise atomization and uniform air distribution, they enhance flame stability and improve overall thermal efficiency. Manufactured from durable Cast Iron (CI) or Stainless Steel (SS), these nozzles offer excellent resistance to wear, high temperatures and corrosion—delivering reliable performance in a wide range of boiler applications.



MDC Cones With IGV

The MDC Cones with Inlet Guide Vanes regulate air and gas flow entering the multi-dust collector (MDC). They improve dust separation efficiency by optimizing swirl and velocity. Engineered for high temperature and abrasive conditions, they enhance collection performance and extend equipment life.



Ash Feeder for MDC Bottom

This feeder transfers collected ash from the bottom of the multi-dust collector to the disposal system. Its rugged design ensures continuous discharge, preventing clogging or bridging. Built from wear-resistant steel, it guarantees smooth ash handling and minimal maintenance downtime.



Mixing nozzles

Mixing Nozzles are designed to accurately blend fuel and air, ensuring complete and efficient combustion. With precision-engineered atomization and uniform flow distribution, they enhance flame stability and maximize thermal efficiency. Crafted from robust Cast Iron (CI) or Stainless Steel (SS), these nozzles offer superior resistance to heat, wear, and corrosion—providing long-lasting, reliable performance in various boiler systems.



Cast Iron Blowers

Cast Iron Blowers provide durable and steady airflow for combustion or material conveying. The robust CI housing resists wear and vibration, ensuring long operational life. Suitable for both forced and induced draft systems, these blowers combine reliability, low noise and consistent air delivery.



Pocket Feeder

Pocket Feeders regulate and distribute fibrous fuels like bagasse or biomass evenly into the furnace. Their precisely designed pockets prevent clogging and ensure consistent feeding rates. Built for high-temperature service, they provide durability, low maintenance and improved combustion stability in sugar and biomass-based industries.



Cast Iron Nozzles - For Boiler

Cast Iron Nozzles deliver controlled air or fuel jets into the furnace. Designed for high temperature and erosion resistance, they ensure complete combustion and optimal flame shape. Available in various sizes, they enhance fuel efficiency and contribute to uniform furnace heating.



Cluster and Support Bar

Cluster and Support Bars provide structural reinforcement for coil assemblies and tube banks. They maintain spacing and alignment under thermal expansion. Fabricated from alloy steel, they ensure dimensional stability, prevent vibration damage and support long-term mechanical integrity of heat transfer surfaces.



Boiler Pulsating Grate Bars

The Boiler Pulsating Grate Bar supports solid fuel during combustion while allowing uniform air distribution from below. Constructed from heat-resistant cast iron or stainless steel, it ensures efficient fuel burning, easy ash discharge and minimal maintenance. Its robust design enhances durability and optimizes boiler performance.



Wood Fired Grate Bar

The Wood-Fired Grate Bar supports solid fuel during combustion while allowing optimal airflow from below. Manufactured from heat-resistant cast iron or stainless steel, it ensures efficient wood burning, smooth ash removal and reduced maintenance. Its sturdy construction delivers long service life and enhanced boiler efficiency.



Cyclone Inlet Guide Vane

The Inlet Guide Vane regulates and directs gas or air entering cyclones or fans to improve efficiency and control flow. By adjusting the swirl angle, it reduces energy consumption and stabilizes pressure. Designed for robust service, IGVs enhance equipment performance and extend operational life in dust-laden environments.



Fire Door

The Fire Door provides safe access to the furnace for inspection and fuel charging. It's designed with heat-resistant insulation to prevent heat loss and ensure operator safety. Equipped with robust locking mechanisms and observation ports, it maintains combustion chamber integrity and supports efficient boiler operation.



Husk Bar

Husk Bars play a key role in supporting solid fuel during combustion while allowing optimal airflow from below. Crafted from durable, heat-resistant cast iron or stainless steel, they promote efficient burning and smooth ash discharge. Their robust design ensures long service life, minimal maintenance and enhanced boiler performance.



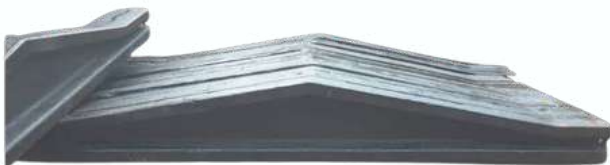
Single Grate Bar

Single Grate Bars offer strong support for solid fuel during combustion while ensuring smooth air circulation from below. Manufactured from high grade, heat-resistant cast iron or stainless steel, they promote efficient burning and easy ash discharge. Their durable construction guarantees long service life, reduced maintenance and improved overall boiler performance.



Mixing Nozzles internals - 4/ 5 / 6 Inch

Mixing Nozzles Internals 4/5/6 are designed to precisely regulate and blend fuel with air for complete and efficient combustion. Engineered for accurate atomization and uniform flow distribution, they enhance flame stability and optimize thermal efficiency. Manufactured from high-grade Cast Iron (CI) or Stainless Steel (SS), these nozzles offer excellent resistance to wear, high temperatures and corrosion ensuring long-lasting, reliable performance across diverse boiler applications.



Support H Type Bar

The H-Type Support Bar holds tube bundles or coils firmly in position, maintaining correct spacing and preventing vibration. Designed for strength and easy installation, it ensures structural stability and uniform load distribution across boiler assemblies.



Cyclone Outlet Guide Vane

Outlet Guide Vanes are installed at the discharge end of cyclones to streamline gas flow and reduce turbulence. They enhance separation efficiency and minimize pressure loss. Manufactured for precision and strength, they help achieve smoother exhaust flow and reduced system vibration in flue gas handling systems.



HT Motor Starter Body

The HT Motor Starter Body houses high-tension electrical starters that control heavy duty motors used in boiler auxiliaries. Built from high-grade materials, it ensures electrical safety, heat dissipation and mechanical protection. Its robust design enables reliable motor operation and long service life under demanding industrial conditions.



Fire Door

The Fire Door provides safe access to the furnace for inspection and fuel charging. It's designed with heat resistant insulation to prevent heat loss and ensure operator safety. Equipped with robust locking mechanisms and observation ports, it maintains combustion chamber integrity and supports efficient boiler operation.



Secondary Air Ducting

The Secondary Air Ducting supplies controlled secondary air into the furnace to complete combustion and reduce emissions. Fabricated from heat resistant steel, it maintains uniform air distribution and pressure. Its robust construction ensures durability and contributes to efficient and clean fuel burning.



Circular Coil

The Circular Coil serves as a compact heat transfer element in superheaters, economisers or air preheaters. Its coiled geometry offers high surface area for efficient heat exchange. Made from high-grade alloy or carbon steel, it withstands high pressure and temperature, ensuring dependable performance.



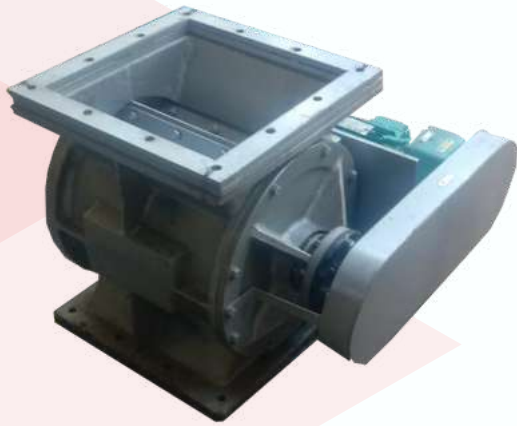
Flanges

Essential mechanical components for pressure and non-pressure pipelines. Manufactured as per IBR and international standards, they ensure strength, leak-proof connections and seamless integration within boiler systems.



Cyclone Separator

Air pollution control units that capture dust and ash particles from flue gases. They ensure cleaner emissions, regulatory compliance and prolonged fan and duct system life.



Rotary Air Lock Feeder

Used to feed materials into pressurized systems without air leakage, Rotary Air Lock Feeders maintain consistent material flow, ensuring system efficiency and reduced spillage.



Bagasse Feeder

Pocket Feeders regulate and distribute fibrous fuels like bagasse or biomass evenly into the furnace. Their precisely designed pockets prevent clogging and ensure consistent feeding rates. Built for high-temperature service, they provide durability, low maintenance and improved combustion stability in sugar and biomass based industries.



Filter

Air pollution control units that capture dust and ash particles from flue gases. They ensure cleaner emissions, regulatory compliance and prolonged fan and duct system life.



Fuel Nozzles

Nozzles regulate and mix fuel with air to ensure complete combustion. Engineered for precise atomization and flow distribution, they improve flame stability and thermal performance. Manufactured in CI or SS, they resist wear, high temperature and corrosion, ensuring reliable performance in diverse boiler applications.



Hydropower Piping

Hydropower Piping systems are engineered for the transfer of pressurized fluids in industrial and energy applications. Designed to handle dynamic loads, they ensure minimal energy loss and long service life. Their robust fabrication and accurate alignment ensure efficient hydraulic performance and operational reliability.



Pipe Structure

Pipe Structures provide mechanical support for pipelines, ducting and pressure part assemblies. Designed to withstand load, vibration and thermal expansion, they maintain system alignment and integrity. Fabricated from structural steel, they ensure long term stability and ease of maintenance in plant environments.



Temperature Indicator

Instrumentation elements designed for precise monitoring of temperature, pressure and flow. These ensure optimal process control, reduced downtime and improved energy efficiency.



Temperature Transmitter

The Temperature Transmitter accurately measures and transmits temperature data for effective process monitoring and control. It ensures reliable performance, minimizes downtime and enhances energy efficiency across industrial applications.



Plates

These plates serve as critical components in pressure and non-pressure applications. Manufactured in accordance with IBR and international standards, they provide exceptional strength, leak-proof integrity and reliable integration within boiler and pipeline systems.



Double Block Double Bleed

This specialized valve system provides positive isolation for critical pipelines, allowing maintenance without process interruption. The dual sealing arrangement ensures zero leakage, enhancing safety and reliability. Commonly used in high-pressure and high-temperature applications, it combines compactness, easy operation, and superior sealing performance.



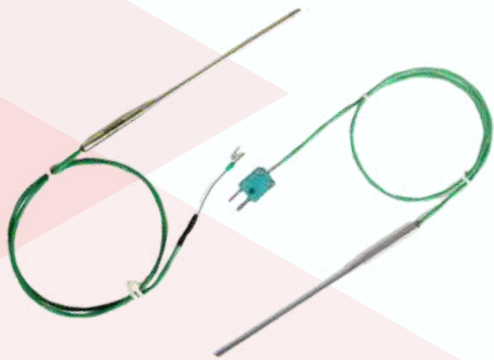
Valves

Critical safety and control devices that regulate pressure, prevent water hammer and ensure safe discharge. They form the backbone of boiler operational safety and efficiency.



Rings

Essential mechanical components for pressure and non-pressure pipelines. Manufactured as per IBR and international standards, they ensure strength, leak-proof connections and seamless integration within boiler systems.



Sensors

Instrumentation elements designed for precise monitoring of temperature, pressure and flow. These ensure optimal process control, reduced downtime and improved energy efficiency.



Pressure Gauge

Instrumentation elements designed for precise monitoring of temperature, pressure and flow. These ensure optimal process control, reduced downtime and improved energy efficiency.



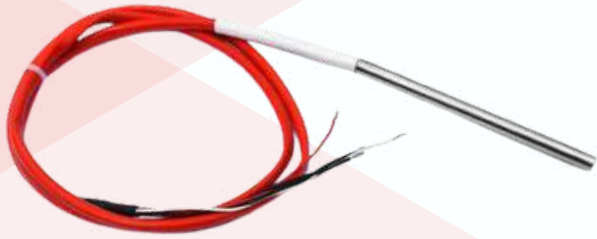
RTD

RTDs (Resistance Temperature Detectors) are precision instruments designed for accurate temperature measurement and monitoring. They ensure reliable process control, minimize downtime and enhance overall energy efficiency in industrial operations.



Temperature Controller

The Temperature Controller precisely regulates and maintains desired temperature levels within the system. It ensures accurate process control, enhances operational efficiency and helps prevent overheating or energy loss in industrial applications.



Heater Coil

The Heater Coil provides supplementary heat for process fluids or air systems in industrial operations. Made from high grade stainless steel or alloy tubes, it offers efficient heat transfer and corrosion resistance. Compact and durable, it maintains precise temperature control and contributes to energy-efficient plant operation.



Pressure Transmitter

The Pressure Transmitter converts process pressure into standardized electrical signals for automated control systems. It provides high accuracy, fast response and long-term stability. Essential for boiler safety and monitoring, it ensures precise pressure measurement, enhances system automation and prevents overpressure risks.

Resource Capabilities

Manpower

Sr. No	Grade	Qty
1	Proposal Engineers	4
2	Procurement Engineers	3
3	Project Coordinators	3
4	Mechanical Engineers-Erection	16
5	Mechanical Engineers - Commissioning	8
6	E&I Engineers - Erection & Commissioning	6
7	Supervisors	12
8	Foremans	22
9	Pipe Fabricators	45
10	Pipe Fitters	55
11	Structural Fitters	35
12	Structural Welders	20
13	Tack Welders	8
14	HP Welders	12
15	Riggers	45
16	Valve Serving Technicians	8
17	BankTube Expanders	6
18	Refractory Masons	8
19	Insulators	12
20	Work Permit Receivers	6
21	Painters	15
22	Electrician	7
23	Helper	55
	Total	411
Dehu can arrange additional manpower according to the site requirements, even if it exceeds the specified quantity.		

Tools and Tackles

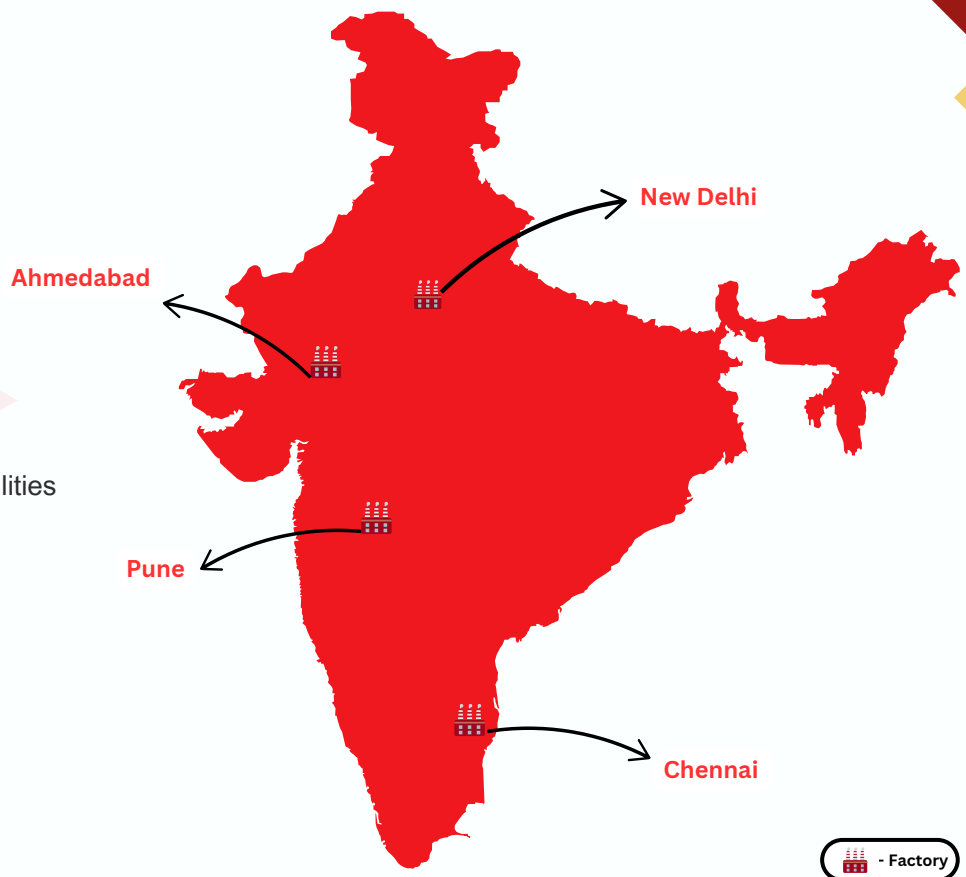
WELDING ITEMS / GAS CUTTING ITEMS		
1	Welding Rectifier	30
2	Welding Transformer	15
3	Electrode Portable Oven	45
4	Electrode Regulator	70
5	Welding Cables 100 mtr	24
6	Cutting Hose	25
7	O2 Regulator	15
8	DA Regulator	18
9	LPG Regulator	18
10	Welding Helmet	40
11	Argon Welding Sets	22
12	Argon Regulator	19
13	Welding Holder	58
PIPING ITEMS		
1	Piping Bending Machine	5
2	Pressure Test Hand pump	2
3	Hydro Test Pump	2
4	Measuring Tape (15 m)	35
5	Measuring Tape (5 m)	60
6	Hack Saw Frame	15
7	Chisel	25
8	Plumb	18
9	Right Angle (6 Inch)	14
10	Right Angle (12 Inch)	15
11	Spirit Level	15
12	Tube Expander Machine	15
13	Pipe Edge Beveling Machine	14
MACHINERY ITEMS		
1	Grinding Machine AG-7	24
2	Grinding Machine AG-4	28
3	Pencil Grinding Machine	6
4	Pistol Drill Machines	3
5	Blower	8

LIFTING TOOLS		
1	Chain Pulley Block (5 Ton)	15
2	Chain Pulley Block (2 Ton)	14
3	Hydraulic Jack (50 Ton)	3
4	Hydraulic Jack (20 Ton)	2
5	Wire Rope (1 inch)	200 Mtr
6	Wire Rope (10 mm)	100 Mtr
7	Slings 1"	13 Sets
8	Slings 2"	14 Sets
9	Slings 1/2"	8 Sets
10	Slings 1/4"	9 Sets
11	Manila Rope (20 mm)	100 Mtr
12	Manila Rope (1")	100 Mtr
13	Single Way Machine Rope Pulley	8
14	Single Way Pulley	6
15	Two Way Pulley	6
16	Three Way Pulley	5
17	Winch Machine with Rope	10
18	Hook Chuck (5 Ton)	8
19	Hook Chuck (2 Ton)	8
20	D Shackles (20 Ton)	8
21	D Shackles (5 Ton)	8
22	D Shackles (3 Ton)	8
23	D Shackles (2 Ton)	8
24	Eye Bolt (Capacity - 0.5, 1, 2, 3, 5 Ton)	5 Sets
Spanners		
1	Ring Spanner (6 - 32 mm)	4 sets
2	"D" Spanner (6 to 32 mm)	4 sets
3	Slogging Spanners	4 sets
4	"D" Spanner (32 mm to 85 mm)	4 sets
5	Hammers (10 LB, 12 LB, 6 LB, 8 LB)	4 sets
6	Box Spanners (6 - 32 mm)	4 sets
7	Pipe Wrench 6" to 12 "	4 sets
ELECTRICAL ITEMS		
1	Main Switch Board (3 phase)	4
2	Switch Board	6
3	3 Core Cable	6
4	Hand Lamp set & Cable	12
5	Switch Board	12
6	Tester	12
7	Multi Meter	12

Infrastructure

(Pune)

- 1,00,000 Sq. Feet Land
- 35,000 Sq. Feet Covered Shed
- 200 HP Power/200 KVA DG Backup
- 16 MT EOT Cranes
- 14 MT Hydra Cranes 3 Nos
- SMAW / TIG / MIG / ARC Welding Facilities
- Multiple Tube Bending Machines
- Multiple Welding Machines
- Multiple Radial Drill Machines
- Multiple Conventional Lathe Machines
- Multiple CNC/VMC Machines
- Multiple Bandsaw Machines
- Equipped with many more facilities for Manufacturing



✱ Other infrastructure details are not given here.

Capacity

Factory Name	Location	Pressure Part Per Annum Capacity - MT	Non-Pressure Part Per Annum Capacity - MT	Equipments Capacity- MT
Dehu Engineering (India) Private Limited	Pune	5000	8000	1200
Trois Plus industries	Ahmedabad	600	600	200
Flowsun Equipment & Services	Chennai	600 (Non-IBR)	2000	1200
Akaya Engineering LLP	New Delhi	To be updated	To be updated	To be updated

DESIGN & DETAIL ENGINEERING

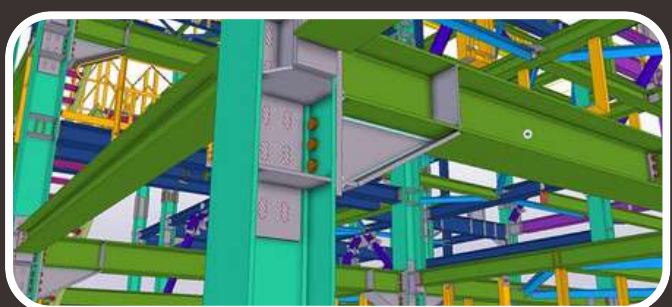
Dehu Engineering & Services provides Design and Detail Engineering services to all power plants, process industries and oil & gas industries.

We have well experienced Design Engineers and Detailers who can perform design, strength calculations and detail engineering.



CIVIL & STRUCTURAL ENGINEERING

- ❖ Civil & Structural analysis, Steel structure & Pipe rack Design as per international codes and standards
- ❖ Civil & Structural Design, Pipe rack design and analysis by using Stadd Pro software
- ❖ Structural connection design *
- ❖ Tekla 3D modelling and detailing for all kind of steel structure
- ❖ Bill Of Quantities, Weight Control Report. *
- ❖ Steel Structures Erection, Fabrication drawings
- ❖ Civil Construction, Layout, Architectural drawings and BOQ
- ❖ Bar Bending schedule for all type of civil works
- ❖ Industrial structures with mezzanine Floors and EOT Cranes
- ❖ All Plant and Non-Plant Buildings
- ❖ Roads & Storm water drainage system



Engineering Services

DESIGN & MANUFACTURING OF MODULAR SKIDS

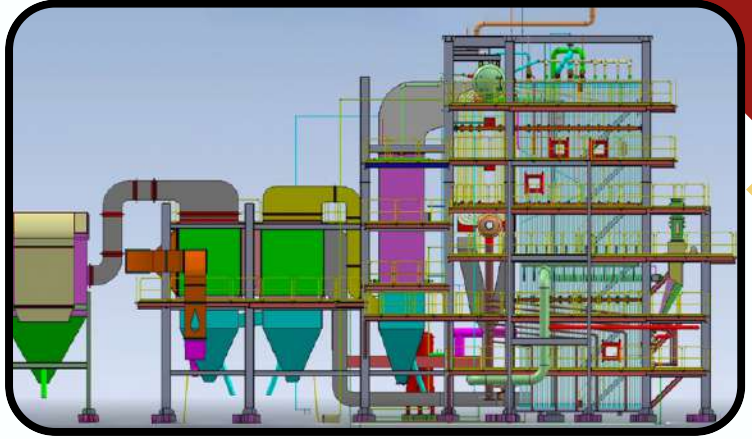
- ❖ Design of various modular skids, metering stations and Pressure reduction stations, Fuel oil/gas skids etc.
- ❖ 3D Modelling of skids – *Structural, Mechanical, Piping and E&I
- ❖ Skid frame structural design by using Stadd Pro structural analysis software
- ❖ E&I Engineering including cable and cable trays, junction box etc.
- ❖ Extraction of fabrication drawing for Structure, piping and electrical
- ❖ Piping Isometric drawings detailing
- ❖ Skid lifting analysis to optimize supporting arrangement & sling / shackle selections
- ❖ MTO for Piping, Structure and E&I



* Software related works are outsourced.

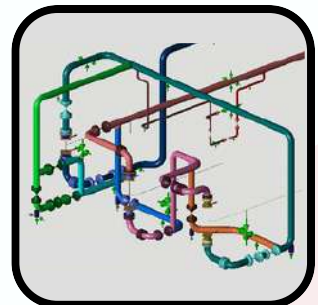
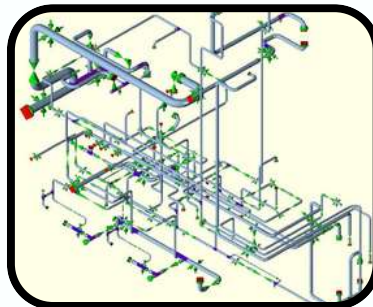
3D MODELING SERVICES

- ❖ Model review walk through along with client
- ❖ Extraction of piping layout
- ❖ Extraction of piping Isometric drawings with MTO
- ❖ 3D modeling for process equipment's
- ❖ Conceptual drawings / models



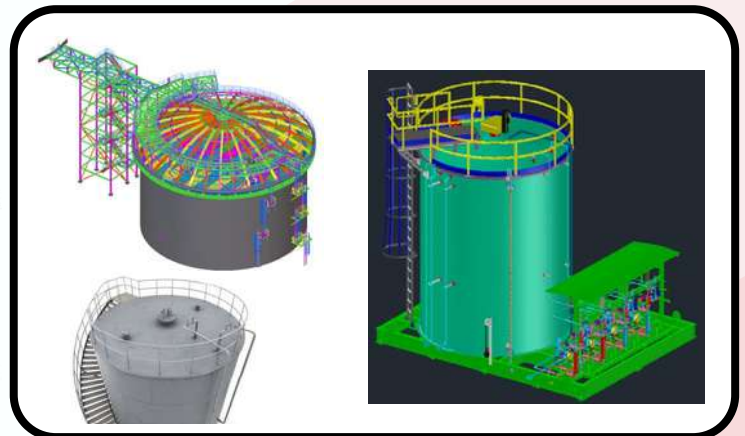
PIPING STRESS ANALYSIS, DETAILING AND PIPE SUPPORTS

- ❖ Piping Stress Analysis and piping flexibility calculations for existing & new piping systems as per ASME code*
- ❖ Compliance issues, flexibility of pipe stress analysis for codes B31.3, B31.1, B31.5 and others
- ❖ Design, analysis and re-rating of piping systems based on ASME/ANSI 31.1 & B31.3.
- ❖ Fatigue Analysis to calculate the fatigue life of Piping Systems with pressure cycles, temperature cycles and start-up shut-down cycles.
- ❖ Wind & Seismic analysis
- ❖ API 579 Fitness for Service
- ❖ Finite Element Analysis for Piping and Piping components.
- ❖ Preparation of Stress analysis report as per client format & Stress Isometric drawings
- ❖ Preparation of P&I Diagrams
- ❖ Pipe routing and layouts
- ❖ Piping Isometric drawings with MTO
- ❖ Pipe support design based on piping stress analysis report



STORAGE TANK DESIGN AND DETAILING

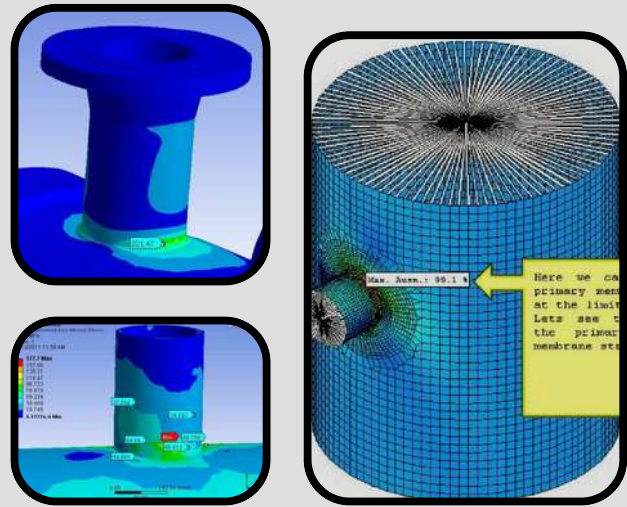
- ❖ Design and Analysis of Storage Tank based on API 650/653/620*
- ❖ Detailing of tank by using Tank-2016 software*
- ❖ Design and Analysis of Low-Pressure Storage Tank based on API 620
- ❖ Design of cone roof structure for external loading
- ❖ Rectangular tank design and detailing by using Roak's formulas for stress and strain



* Software related works are outsourced.

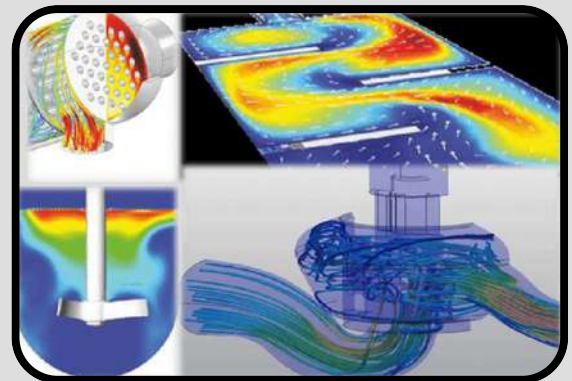
FINITE ELEMENT ANALYSIS

- ❖ FEA (Finite Element Analysis) for Pressure parts and Non pressure parts*
- ❖ Thermo-Structural analysis of piping and equipment
- ❖ Nozzle localized stress analysis
- ❖ Buckling Analysis
- ❖ Fatigue Analysis
- ❖ Creep Analysis
- ❖ Vibrational Analysis
- ❖ Transient Thermal and Steady State Analysis*



COMPUTATIONAL FLUID DYNAMICS (CFD) SOLUTIONS*

- ❖ Validation of conceptual thought and processes in industry
- ❖ Performance and rating of heat exchangers
- ❖ Solutions for irregular process solutions
- ❖ Solutions for R&D activities in product development (avoiding actual cost impact)
- ❖ Solutions for product geometric changes
- ❖ Thermal & physical behaviour of fluid flow passages in operation
- ❖ Temperature & velocity profile inside flow passages
- ❖ Pressure drop analysis for various fluids
- ❖ Pump performance & validation



BOILER FUEL FEEDING SYSTEM

- ❖ Bagasse, coal, husk etc fuel storage and feeding system design
- ❖ Screw conveyors
- ❖ Coal spreaders for Traveling grate boilers
- ❖ Baggage storage bin, Drum feeders and chutes
- ❖ Pulverized fuel piping layout and design (Coal mill to Burner)
- ❖ Fuel storage bunkers
- ❖ Fuel conveyors - Belt type, Drag chain type, bucket type, screw type etc.



* Software related works are outsourced.

TRAVELLING GRATE, DUMPING GRATE AND PULSATING GRATE STOKER DESIGN AND DETAIL ENGINEERING

- ❖ Design and Detail Engineering for Travelling grate, dumping grate and Pulsating grate stoker
- ❖ Latest material for high calorific low ash coal fuel
- ❖ Travelling Grate Stoker drive system technical specifications
- ❖ High pressure lubrication system
- ❖ Refractory and insulation design and detailing
- ❖ Re engineering for travelling and dumping grate parts
- ❖ Site inspection & troubleshooting for travelling and dumping grate stokers



TRAVELLING GRATE



PULSATING GRATE



DUMPING GRATE

VALUE ENGINEERING, REVERSE ENGINEERING & OTHER SERVICES

- ❖ Energy auditing to optimize in house power and fuel consumption
- ❖ System functional analysis and identify scope for improvement and cost saving
- ❖ Reverse engineering for existing boiler parts such as Economizer, Super heater, Re Heater coils, Bed coils, Fuel burning system and nozzles etc
- ❖ Rerouting of piping and its pipe supports
- ❖ All kind of drawing development for existing items in power plant.



ENGINEERING CONSULTANCY FOR BOILER AND POWER PLANTS

- ❖ Feasibility Reports
- ❖ Detailed Project Reports
- ❖ Basic Engineering
- ❖ Detailed Engineering
- ❖ Procurement Assistance
- ❖ Construction and Commissioning Supervision
- ❖ Project Management
- ❖ Operation and Maintenance
- ❖ Boiler Capacity Upgradation
- ❖ Boiler Performance Improvement
- ❖ Combustion System Modification



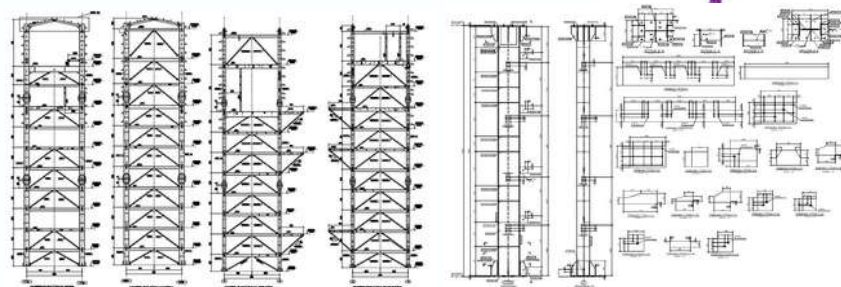
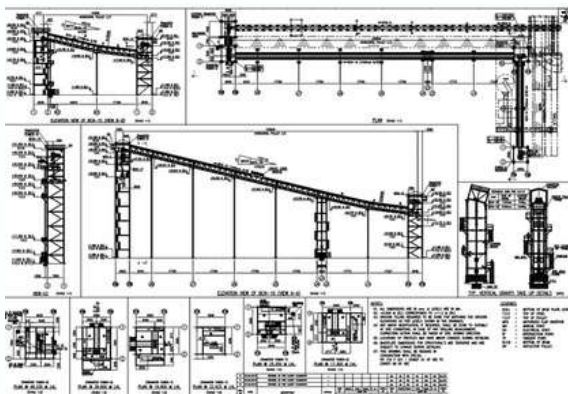
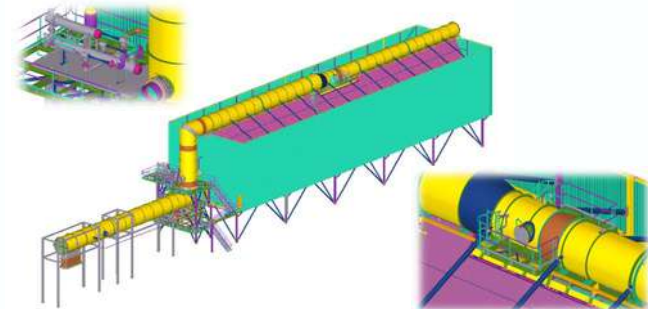
TEKLA MODELING & DETAILING SERVICES*

We have detailed engineering services facilities by using Tekla* & ZWCAD. We deliver precise steel detailing drawings. The team is organized and motivated with the Agile working model understand the project requirements in order to deliver the output in a streamlined common approach. We take time to comprehend the client's obligation and provide work rendering to client's needs.

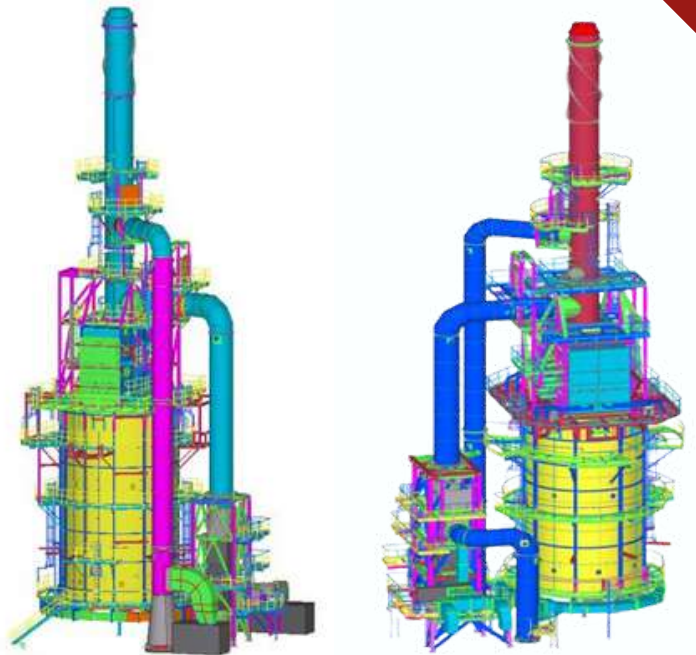
We provide drafting & detailing services for all types of steel structures in the areas of

- » Petrochemical Refineries
- » Power Plants
- » Commercial Buildings
- » Minerals and Mines
- » Industrial Buildings
- » Industrial & Circular Platforms
- » Bridges
- » High Rises & Multi-Storey Structures
- » Trusses, Stair Cases, Handrails, Ladders & Miscellaneous
- » Water Treatment Plants
- » Conveyors, Chutes, Bins, Liners, Etc

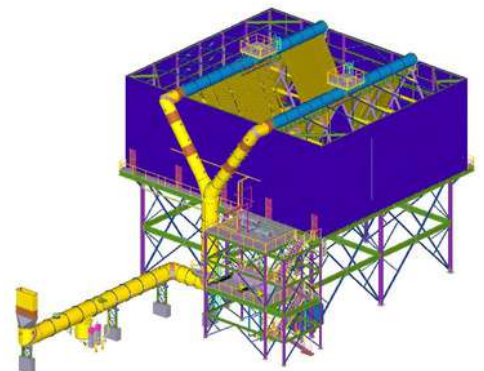
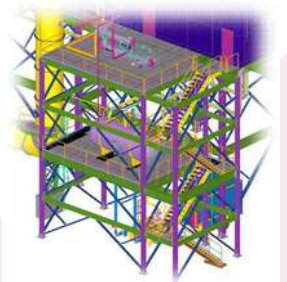
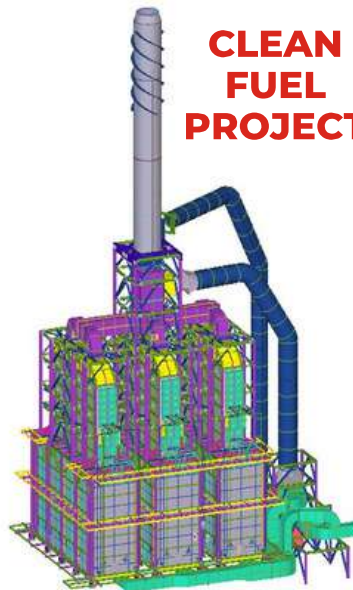
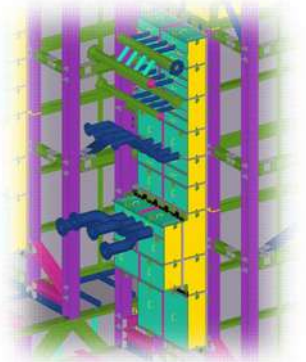
KIRKLARELI COMBINED CYCLE POWER PLANT



NHT REACTOR FEED HEATER



CLEAN FUEL PROJECT



* Software related works are outsourced.

BRIDGE DESIGN

- Design of Railway Bridges as per IRS (Indian Railway Standards) codes.
- Design of Pedestrian Bridge as per IRC (Indian Road Congress) codes.
- Finite Element Modelling of Bridges in Staad Pro, Lusas & Midas softwares.
- Bridge Design as per Eurocode EN 1992 and BS 5950.



DECK SLAB BRIDGE



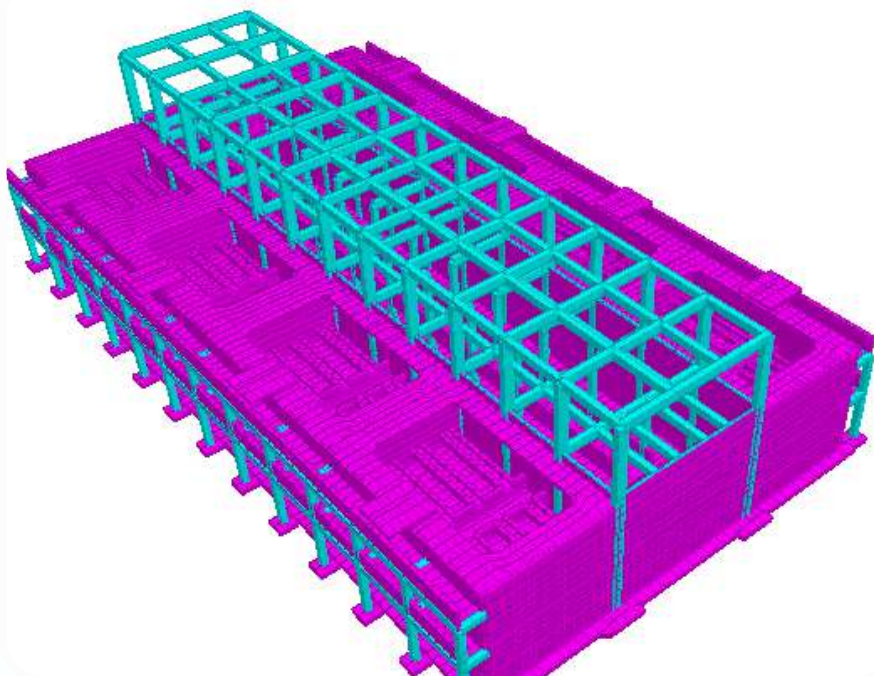
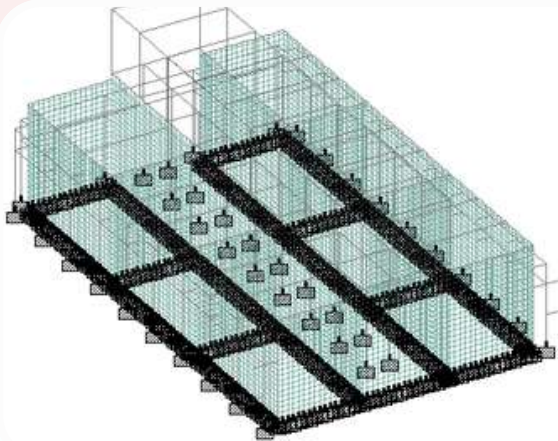
BOW STRING GIRDER BRIDGE



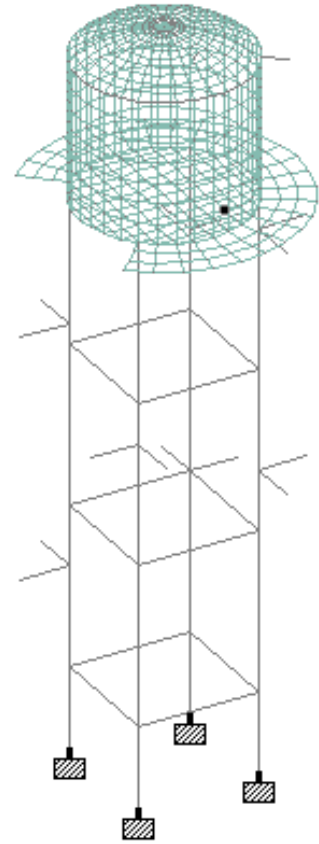
TRUSS BRIDGE

WATER INFRASTRUCTURE

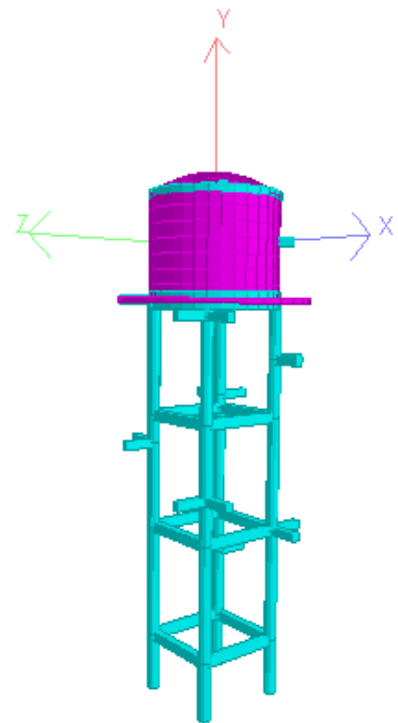
- Design of Water Treatment Plant Structures as per IS 3370 code, Eurocode and ACI code.
- Design of ESR Elevated Storage Reservoir and OHT Over Head Tanks
- Design of Pump House
- Design of Filter House
- Design of Pipe Supporting Bridge
- Design of CWR Clear water Sump.
- Design of Intake well



FINITE ELEMENT MODEL OF A FILTER HOUSE



ELEVATED STORAGE RESERVOIR

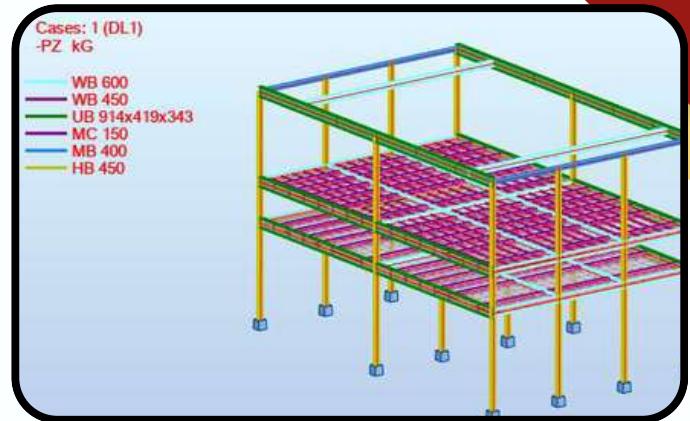


50KL ESR MODELLING IN STAND

DESIGN OF INDUSTRIAL STRUCTURE

Design of Industrial Structures in STAAD pro as per IS standards, ACI and CSA A23.4 codes

- Finite Element Modelling of Industrial Structures
- Design of ESR Elevated Storage Reservoir and OHT Over Head Tanks
- Design of Pump House
- Design of Steel Plant.
- Design of Aluminium Structures
- Design of Steel Structures as per IS 800, AISC, CISC, EN 1993 codes.



TELECOM TOWERS

Our design experts also provide services at different phases of construction such as:

Structural Analysis of Design of Telecom Towers as per CSA A23.4 and CSA S37-24 in TS Tower* software, Guymaster* & TNX Tower*.

Design of Self supported Tower

Design of Guyed Tower

Design of Monopole Tower

Design of Roof Top Tower

Stability Analysis of Existing Towers and upgrade of Antennas

Develop comprehensive steel and concrete structure drawings for fabrication and installation using AutoCAD;

Create detailed structural drawings, including erection plans, connections and coordinate with other disciplines to ensure alignment and accuracy with minimal supervision;

* Software related works are outsourced

1. Construction Drawings
2. As-built Drawings



BUILDING INFORMATION MODELLING

- 3D Modelling of Buildings and Structures

Architectural BIM

Structural BIM

Mechanical, Electrical and Plumbing BIM

- Implementation of project/client software templates and standards and ensure technical processes are integrated into project workflows and followed.
- Conduct model audits to ensure compliance and report on outcomes.
- Coordinate and manage project federated model(s) and linked drawing deliverables and documentation outputs.
- Represent BIM Team with tendering, proposals and submissions to define BIM scope, workflows and plans on projects in multi-discipline environment.
- Realize BIM compliance through technical design requirements and BEP requirements.
- Ensure spatial coordination and software interoperability.
- Check models for overall health quality, consistency and general aesthetics.
- Interface clash Detection in the 3D models.
- Software Capabilities include BIM 360, ACC, Revit, Navisworks, Civil 3D, AutoCAD, Synchro 4D, Rhino, ProjectWise, MicroStation.



SERVICES FOR QUALITY INSPECTION & EXPEDIATING

- ❖ Inspection at workshops, Mechanical and Electrical, during fabrication, final, FAT, performance, pressure tests, etc.
- ❖ Third-party vendor and Source Inspection services (on-site) across the global supply chain.
- ❖ On time, partial or full time (resident inspectors)
- ❖ Full project inspection management
- ❖ Supplier's evaluations and capabilities.
- ❖ Project & Procurement Expediting services
- ❖ Witness and Verification of critical activities
- ❖ Quality Program Management
- ❖ Quality System Audits
- ❖ Inspections at site during erection and commissioning.
- ❖ Pipeline Inspection Services
- ❖ Status Reporting
- ❖ Corrective Action and follow-up
- ❖ ITP Review

SERVICES FOR ERECTION, COMMISSIONING & SUPERVISION

- ❖ Complete site supervision and management by deputing competent Project Manager / Construction Manager and supporting staff at site.

The responsibilities shall include:

- ❖ Maintaining Quality of construction / erection work.
- ❖ Planning and controlling the Construction / Erection work to meet the project schedule.
- ❖ Manpower, tools, tackles and equipment's management
- ❖ Following Safety Standards
- ❖ Reporting to client for the site progress with short falls, if any and corrective measures
- ❖ Start-up & commissioning assistance
- ❖ Site performance tests
- ❖ O & M manual preparation
- ❖ As-built documentation
- ❖ Training of Owner's Personnel
- ❖ Trouble shooting



SERVICES FOR PROJECT MANAGEMENT

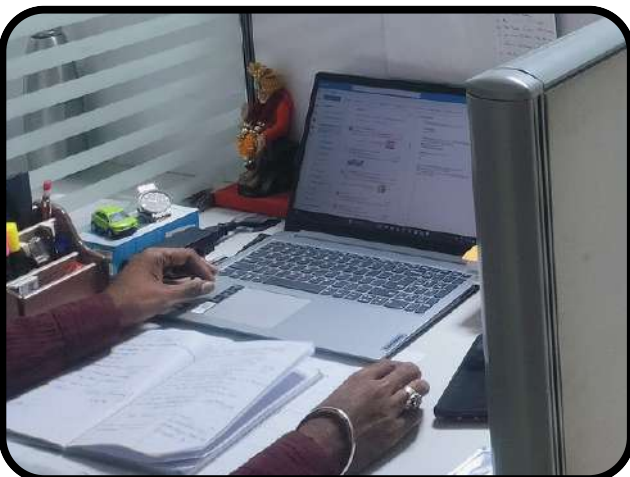
- ❖ Project planning & scheduling
- ❖ Project Monitoring
- ❖ Coordination between the Owner and Vendor / Contractor
- ❖ Critical path evaluation and identification of constraints and systematic elimination of such constraints
- ❖ Conducting project review meetings
- ❖ Preparation of periodic progress reports
- ❖ Progress monitoring and cost control



TRAINING

Training for plant operators, plant engineers and Technicians for

- ❖ Reliability, Availability and Maintainability (RAM) Analysis Training
- ❖ Equipment Critical Analysis (ECA) Training
- ❖ Safety Training to Engineers, Supervisors, Technicians for Permit to Work (PTW), Zero Accident, Confined Space Entry, Hole Watcher, Fire Watcher & Lifting Supervision
- ❖ RCM Basic Induction Training for HO and Site Team Engineers
- ❖ Safety Mechanical, Electrical and Instrumentation maintenance skills training
- ❖ Operation Training -Power, Petro chemical and Oil& Gas Industries
- ❖ Onsite training on specific client needs
- ❖ Integrated safe operating procedures and job inductions



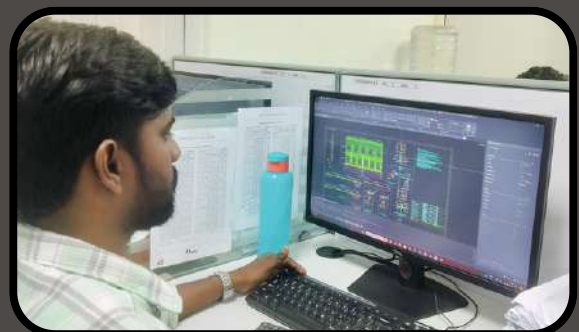
RECRUITMENT / PLACEMENT SUPPORT

- ❖ Provide proactive recruitment of viable candidates in various industries from CV consolidation and pre-qualified candidates for client final Interview
- ❖ Recruit leading candidates for client's field from prospective graduates and job applicants
- ❖ Provide a variety of services including mass hiring and top-level recruitment services to ensure clients fully staffed with the most suitable and capable people
- ❖ To find out-sourcing services to meet client business needs and cut down on full-time employment costs



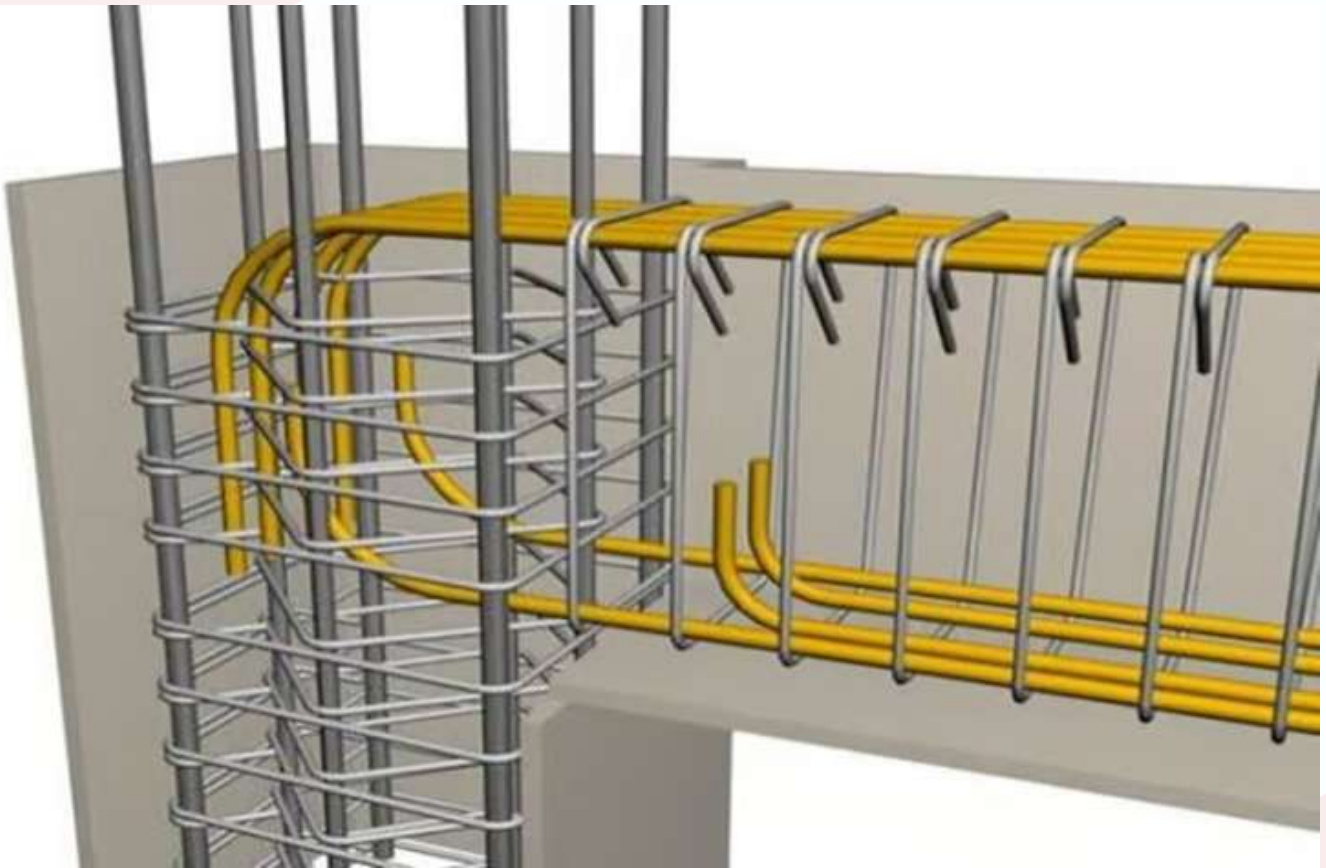
COMPUTER PROGRAMMING & CUSTOMIZATION

- ❖ Client Specific Management Systems (ERP) for small / medium size business/industries
Example Drawing, Material, procurement, supply chain, inventory, accounting, etc.
- ❖ Customized Software tools for various applications
Like design tools, project management tools, QA/QC tools etc.
- ❖ Computer software for Conversion of files
Example files from Gtstrudl to Staad, NC files into DWG convertor etc.
- ❖ Web page management system



Rebar Detailing & Estimation

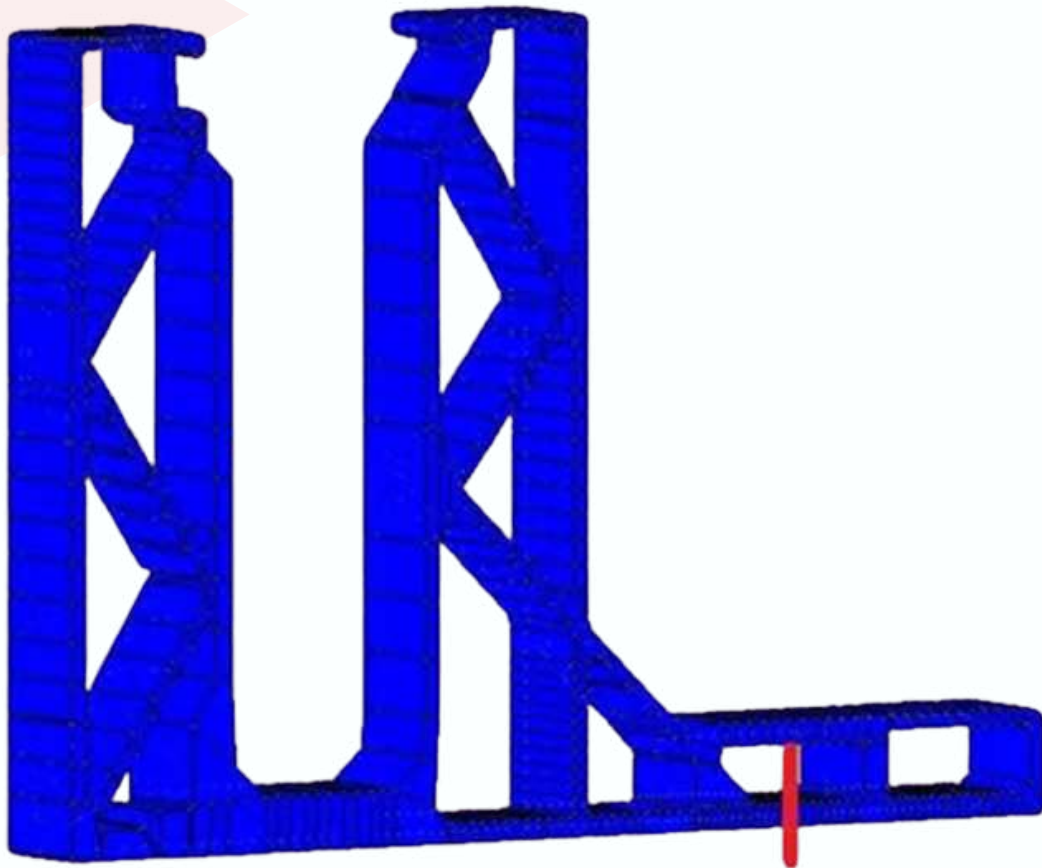
Our expert team specializes in Rebar detailing and estimation of structural elements using ACI codes, CSA codes, Eurocode and BS standards.



- Rebar Detailing of Beams, Columns, Footings, Slabs and Walls in RebarCAD, CADS RC software
- Rebar Detailing done in accordance to IS 456, CSA A23, ACI 318, BS and EN 1992 codes.
- Review detailers' drawings to make sure there are no errors and that they comply with Codal provisions.
- Releasing bar lists for the manufacturing of reinforcing steel with specified lengths, diameters, and bending requirements;
- Provide clear, accurate and concise 2D rebar shop drawings in CAD

Aluminum Facade Structural Design

Design of Aluminum support for Glass Facade



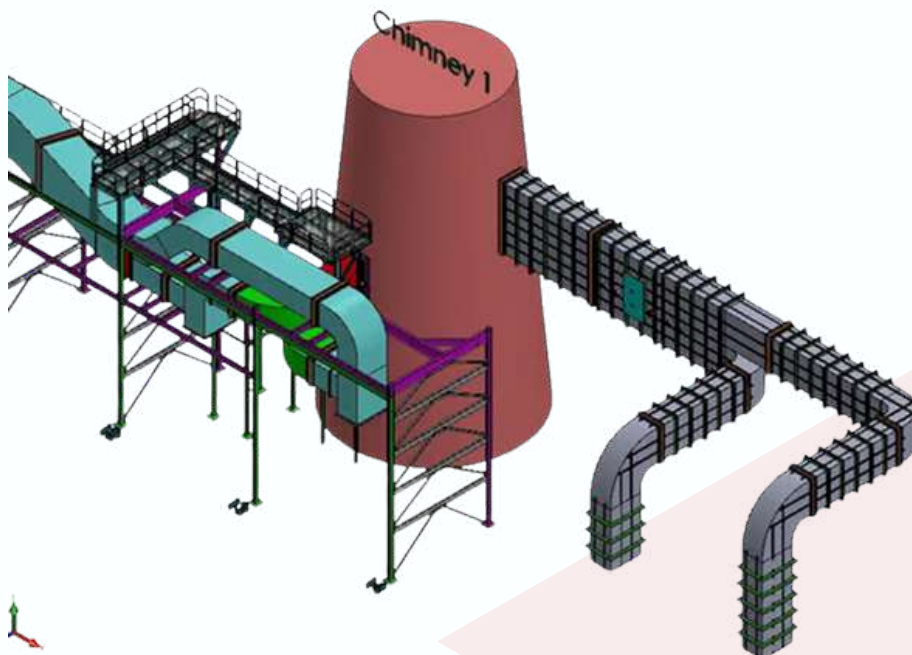
We provide Structural Design of Aluminum Supports for Glass Façade Structure. The Aluminum structure is designed to withstand the Glass load and the Wind load and the Stability of Structure is Checked as per codal provisions.

Duct Support Structures



Design of Duct Support structures for Industrial Structures. We do Structural Analysis and Design of Duct support Structures.

Structural Design of Ducts



We do Structural Design of Ducts coming from Chimney for the Ash pressure , wind loads and Seismic loads.

Ship Structural Design and Detailing

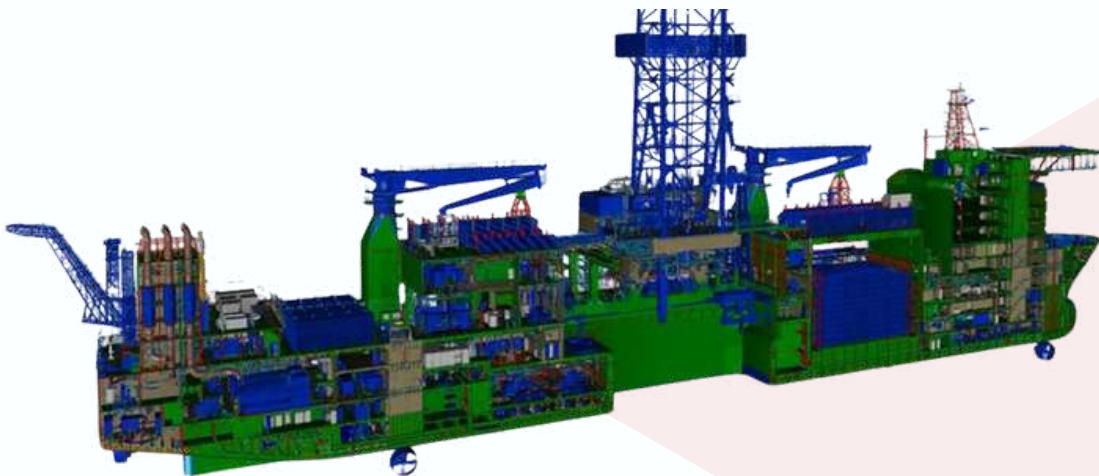
Design of Ship Hatch Cover

We do Structural Design of Ship Hatch Cover as per DNV Standards. This Lift away Hatch cover structure is designed for 7500 DWT ship for Cargo Handling purposes.



Design of Grain Bulk Head for Cargo Ships

We do Structural Design and Detailing of Grain Bulk Head for Cargo Ships as per DNV codal Standards.

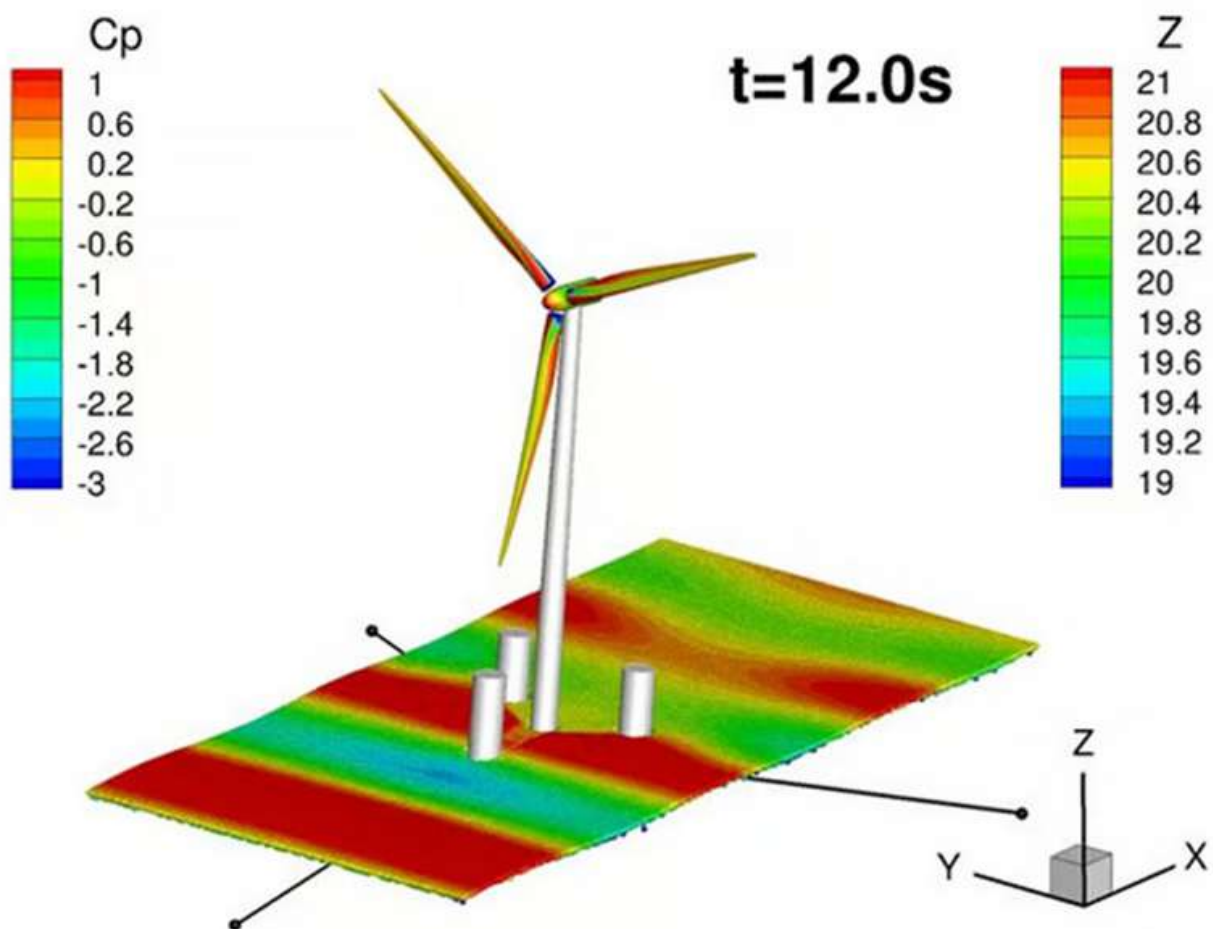


Design and Installation of Wind Mill

Structural Design of Wind Mill

We do Structural Design and Installation of Wind Mills. The Structure is designed to withstand the site specific wind speed. CFD Analysis is done and the structural stability is checked.

We have expertise in designing for US, Canadian, European, Indian and African clients.



Fabrication and Erection of PEB Structures



We do Fabrication of PEB Structures and do connection of members and Erect the structures at site.

Solar Energy



We provide Structural Design of Solar panel support structures.

- Single Axis solar Tracker
- Car shed with solar panels
- Roof Top with solar panels
- Dual Axis solar Tracker structure
- Design of Solar farms

Design of Port Structures

We provide Structural Design of Ports and Harbour Structures as per IS 4651 code, ACI 318 code and Eurocodes.

- 1.Design of Breakwater and jetties
- 2.Design of Access Trestle
- 3.Design of Wharves structures
- 4.Design of Berth structures for vessel docking
- 5.Design of Quay walls
- 6.Design of Navigation channels



Transmission Line Towers

Design of Transmission Line Towers

We do Design of Transmission Line Towers. The Structural Design of legs and Horizontals and Bracings is done for the proposed wind load and the sag tension loading of the power line.



Specialist in Power Plant

Green Field, Brown Field of Erection & Commissioning and Revamping & Retrofit Works

- | | |
|----------------------------|-------------------------------|
| 1) FBC Boiler | 1) Water Treatment Plant |
| 2) WHR Boiler | 2) Cooling Tower |
| 3) Travelling Grate Boiler | 3) Ash Handling System |
| 4) Dumping Grate Boiler | 4) Coal Handling System |
| 5) CFBC Boiler | 5) Turbine |
| 6) Slop Fired Boiler | 6) RO Plant |
| 7) AQC Boiler | 7) DM Plant |
| | 8) Electrostatic Precipitator |
| | 9) Bag Filters |

Additional Services Offered

- 1) Valves Services – Motorized and Non- Motorized
- 2) Damper Services
- 3) Rotary Equipment Services Like Fans & Pumps
- 4) Secondhand Boiler Sales
- 5) RLA Study for the Boiler & ESP
- 6) IBR Liasoning Work
- 7) Structural Inhouse fabrication – Capacity of 500 MT per Annum



Maintenance of Power Plant Equipment

- Boiler Rehabilitation
- Replacement of Boiler High Pressure Parts
- Air Pre heaters Element Replacement
- HP/LP Heater tube replacement
- Overhauling of Fan & Pumps
- Overhauling of Combustion equipment
- Overhauling of Boiler Drum
- Replacement and Overhauling of valves
- Blast Furnace Maintenance
- Regeneration Towers / Fabrication - Erection



Steel Structure Erection

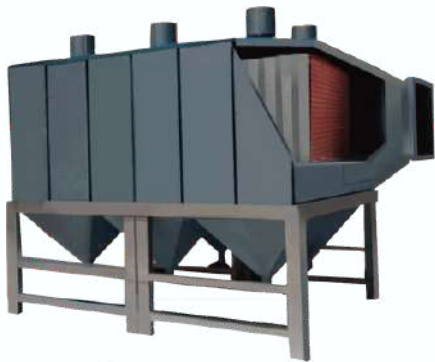


Site Erection



Services

- Erection & Commissioning of all types of power plant
- Erection & Commissioning of all types of boilers
- Erection & Commissioning of all types of steam turbines
- Erection & Commissioning of Fuel handling systems, ESP & APH (Air Preheater)
- Erection & Commissioning of Water Treatment, Effluent treatment Plant
- Replacement of all boiler pressure & non - pressure parts
- Troubleshooting of all types of Boilers, Turbines & BOP
- Pre-commissioning & Commissioning
- Boiler furnace bed conversion from DP Plate to Sporge Header
- Pressure Parts & Non Pressure parts replacements
- Overhauling of steam turbines
- All types of boilers & turbines Shutdown Job Services
- RLA Study of all type of Boilers, Turbines, FHS , ESP, TFH, WTP & ETP



Operation & Maintenance

- All types of Power Plants
- All types of Boilers
- All types of Turbines
- All types of Fuel & Ash Handling Systems
- All types of Utility Units
- All types of Thermic Fluid Heaters
- All types of Water Treatment Plants
- Effluent Treatment Plant
- Multiple Effect Evaporators
- Cooling Towers



Multi Products & Engineering Services

We undertake the following services

- Operation and Maintenance of boiler and power plants of all capacities & types (Thermal-IPP, Co-gen & CPP and Combined cycle)
- Operation and Maintenance of thermic fluid heater & utility units
- Boiler & Power plant Pre-commissioning and Commissioning service
- Boiler startup operation, Performance related Troubleshooting
- Technical Manpower support for OEMs for Commissioning and O&M Services
- Boiler AMC Service all types - AFBC, CFBC, WHRB, Travelling grate & Process boiler
- AMC of WTP/ETP/MEE & Cooling Tower
- Project Management of boiler & power plant execution
- Boiler & auxiliary system Retrofitting for performance improvement
- Troubleshooting & overhauling of steam turbines
- Erection & Commissioning of all types of power plant
- Erection & Commissioning of all types of boilers
- Erection & Commissioning of all types of steam turbines
- Erection & Commissioning of Fuel handling systems, ESP & APH (Air Preheater)
- Erection & Commissioning of Water Treatment, Effluent treatment Plant
- Replacement of all boiler pressure & non - pressure parts
- Troubleshooting of all types of Boilers, Turbines & BOP
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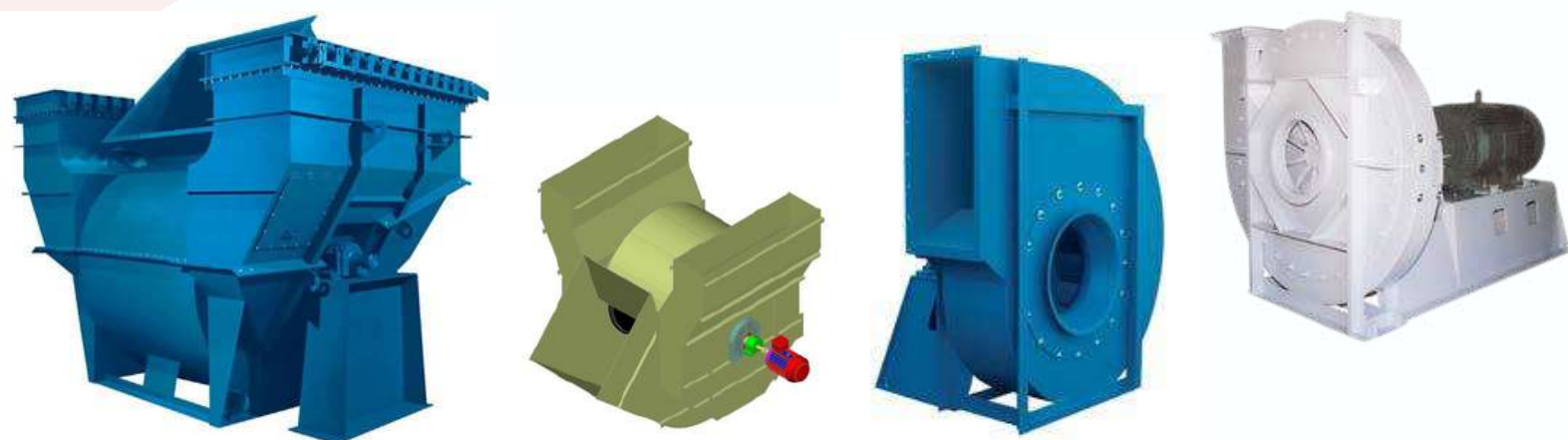
Air Equipments

Process Fans
supplied > 130 nos.

For PH Fan ,Bag House Fan, Cooler Vent Fan, Raw mill Fan, Circulating Fans In Mill Circuits

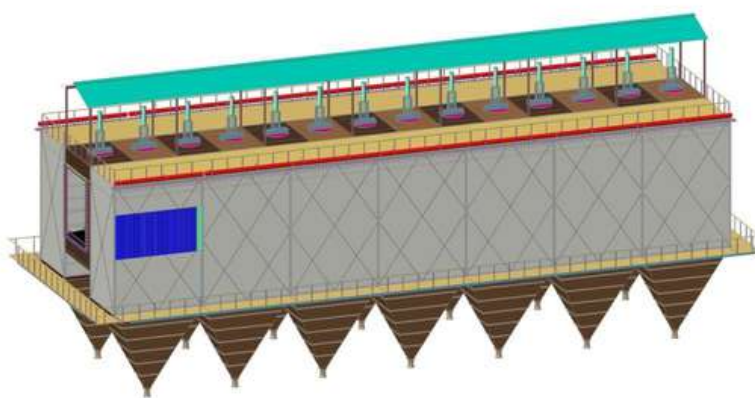
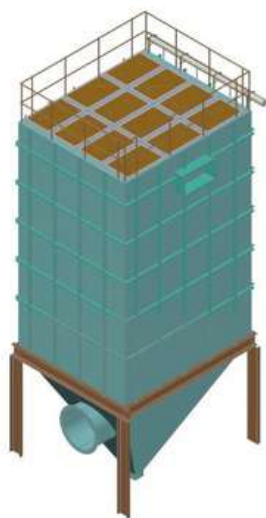
Bag House Fan Handled Volume Upto 7,70,000 m³/ hr. @ 350 mmwg, 260 Deg c

PH Fan Handled Volume Upto 4,40,000 m³/ hr. @ 700 mmwg, 300 Deg c



Bag House / Bag Filters Applications in Raw, Coal, Cement, Slag, Flyash, Circuit Dedusting

Volume Upto 7,10,000 m³/ hr. , Temp Upto 230 Deg c Emission Achieved Less than 10 mgm /nm³



Distillery

- **Versatile Production Systems:** Capable of producing multiple bio-based products with optimal resource use.
- **Technology-Driven Efficiency:** Advanced systems that boost productivity and reduce environmental impact.
- **Expert Distillery Consulting:** Specialized solutions for industrial and commercial distillation projects.
- **End-to-End Project Support:** From feasibility studies to turnkey execution and commissioning.
- **Cost-Effective & Compliant:** Focused on reducing operational costs and meeting all regulatory standards.



Sugar Plant & Machinery Solutions

Dehu Engineering provides cutting-edge, efficient cost-effective solutions, covering design and manufacturing to erection and commissioning. Our products & services covers entire sugar plants including Co-generation Plants, By-products, Electrical Systems & Instrumentation, ensuring seamless execution with innovation, reliability & excellence at every stage.

Dehu Engineering provides a comprehensive "one-stop" solution for modern sugar plants ranging from 1000 TCD to 5000 TCD and beyond.



Sugar Plant Solutions



**Jaggery Plant
Manufacturer**



**Mini Sugar Plant
Manufacturer**



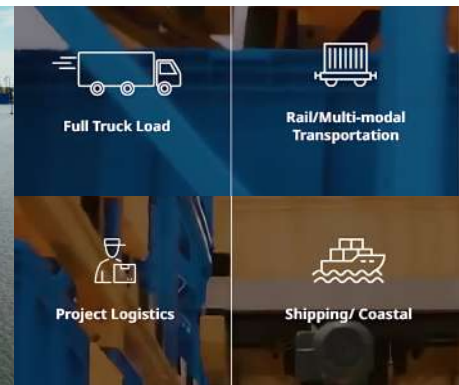
**Khandsari Plant
Manufacture**

Multiple Engineering Solutions

- Operation & Maintenance Management
- Man Power Supply/ Shutdown jobs
- Water Treatment Solutions
- Pump / Gas Skid Engineering Solutions
- Structural / Shed
- Gas / Air Ducting Solutions



Transportation



Discover the benefits of placing your trust in us. Let your business race ahead with our transportation facility!

We once again request you to enlist our firm as your Approved Carriers and utilize our services for transportation of your material.

We assure you that we will render excellent services on most competitive rates.

We now look forward to an opportunity of serving your esteemed organization in the very near future. Thanking you and assuring you of our best attention and services at all times, we remain.



Business Segment:

Cargo Transportation and Logistics Solutions



Our Reach:

Covering all Metros, State capitals, major cities and Industrial zones across the Country.



Products & Service:

Transportation of Full Truck load Containerized Cargo movement, Odd Dimensional Cargo, Project, Transportation and Logistics solutions.

Flexibility to reach higher!

- ✓ Transportation solutions that take your business far.
- ✓ The Science of Road Transportation. The Art of
- ✓ Customer Satisfaction.
- ✓ Nation-wide services covering all major locations.
- ✓ Logistics Redefined



Certifications



Testimonials





Dehu Engineering (India) Private Limited Gat No. 390, Dehu - Alandi Road, Landmark - Near Talawade IT Park, Talawade, Pune - 411062 Maharashtra State, India. Web : www.dehu.in



Akkhilesh Pandey
Sr. Marketing Manager
Email : marketing@dehu.in
Phone : +91 83088 41272

Sandip Pathare
Sr. Marketing Manager
Email : marketing2@dehu.in
Phone: +91 81495 79733

Sonu Vinoth Kumar P
Sr. Manager - Projects & Procurement
Email : pp@dehu.in
Phone: +91 95124 85511

 **+91 90110 48301**

 **DehuDeipl**

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 **Dehu Engineering India Private Limited**

 **Dehu Engineering (India) Private Limited**

 **Dehu Engineering (India) Private Limited**

Multi Product Manufacturing Solutions