Plasticon Composites

EPP Composites Pvt. Ltd.
Since 1986

FGD Solutions for Thermal Power Plants by
A Global Pioneers in Composites EPP & Plasticon BV Netherlands



About Us

- Established in 1986, EPP has been a tour de' force for the past 36 years with dedicated efforts for the growth of composite product solutions in India.

- A technology powerhouse, EPP has been successful in developing and exercising every composite technology available in the world, serving clients with customized, engineered composite product solutions.

- Serving infrastructure, water & sanitation, power & energy, chemical, petrochemical, pharmaceutical, oil & gas, offshore, electrical, building & construction, mass transportation, cooling tower, defence, marine, and steel industry with 100+ product-driven solutions.

- Joint venture with the world leader in FGD (Flue-Gas Desulfurization) solutions - Plasticon based in Hengelo, Netherlands.

- EPP has 10 manufacturing units based in and around Rajkot, Gujarat which cover 8,50,000 square feet in totality with a total workforce of 1500 employees.

- First Indian company to get the prestigious American petroleum institute (API) monogram for its pipes since 2011.

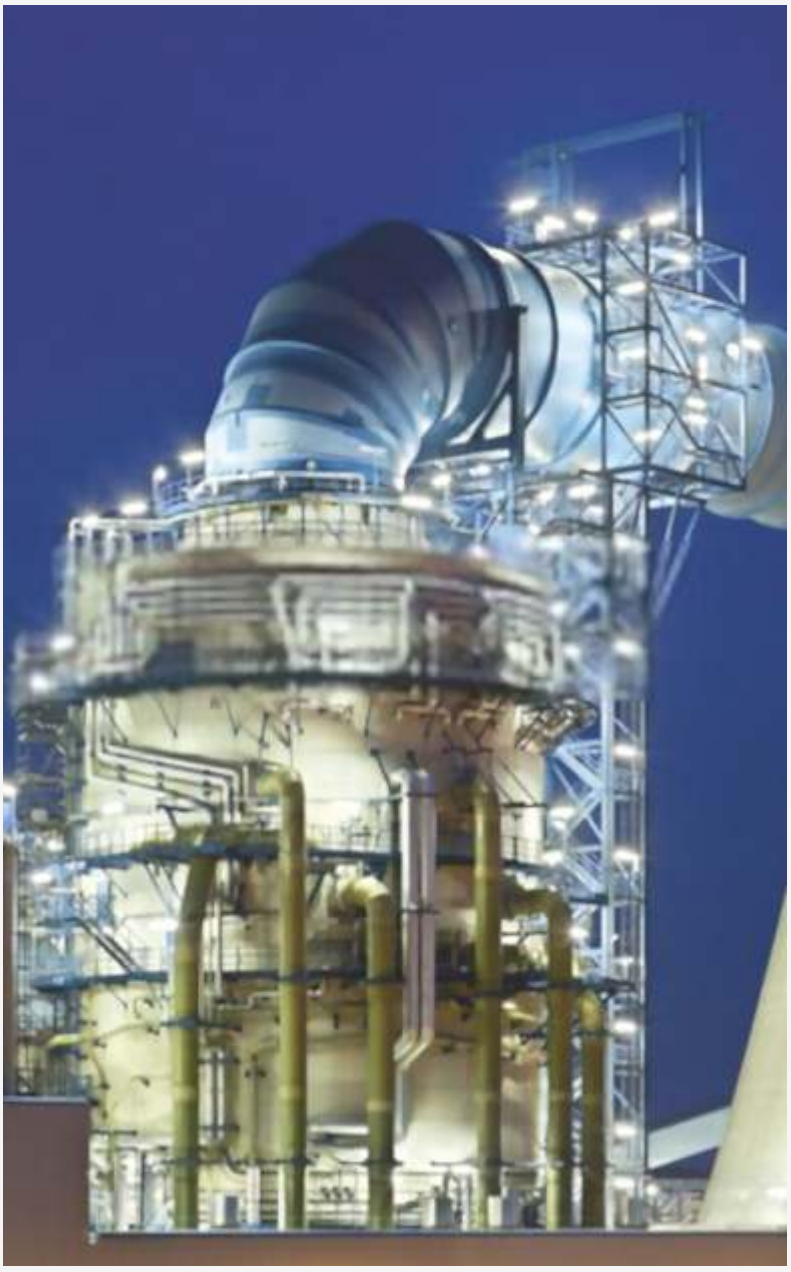
- Certified with ISO 45001:2018 for OH & S (Occupational Health & Safety), ISO 14001:2015 for EMS (Environmental Management System), and ISO 9001:2015 for QMS (Quality Management System).



Product Solutions for FGD System in Thermal Power Plants

Around the globe, governments are becoming increasingly concerned about Air pollution. concerned authorities and regulatory agencies are together working with engineering consultants & technologists, to implement new air pollution control processes mainly
Sox – Nox, control and comply with standards that call for lower limits of gas emissions as well as dust particle discharge.

The flue gas desulfurization process requires sophisticated scrubbing equipment for Sox control and other gases. A decade ago the reheating of wet flue gas posed a challenge for regulatory as well as design engineering, the chemically aggressive flue lowers the exit temperature at the chimney outlet and forms condensate on the liner material resulting in contaminated droplets impacting the liner and as well the environment, now with a renewed technology and use of materials that can withstand the aggressive acid attack, and also cope with the thermal shock of the regular process to bypass – reheat operations.



FRP is a material of choice for "wet process" flue gas desulfurization (FGD) environments, especially to the exposure conditions of highly concentrated sulphuric acid aggressive corrosive conditions.

With a 3 decades reputation, fiberglass reinforced plastic (FRP) provides process engineers with a reliable, cost-effective (overall life-cycle) construction material that can be employed in numerous applications.

Product Solutions for FGD System in Thermal Power Plants

EPP has full capabilities to support Indian EPC companies in this segments by customized manufacturing of the following products



Spray Headers



Ducts



Slurry Piping



Deck Panel



Mist Collectors

EPP engages series of discussions with the EPCS and related consultants to map the application parameters which in turn enables EPP to select :

- Proper high-performance resin having high retention strength and toughness at high elevated temperature which can handle hot wet flue gas environment where thermal upsets can occur & where fire retardance is desired.

- Different types of technical glass roving and fabrics are available on the market but for FGD applications E-CR glass is the industry standard due to its excellent performance in corrosive environments, such as the ones found in FGD applications. requirements for the E-CR glass fibers are specified in the en 13121-1. it is recommended that the owner specifies the use of E-CR glass over other types of glass.

- M/s Plasticon BV Netherlands and EPP composites have formed JV to provide the thermal power segment with the combined expertise of the fgd international domain specialist long-term Indian manufacturing pioneer in composites.



Spray Headers

Maximizing contact of the flue gas with the slurry spray is the key design aspect of the spray header system.



Older designs have gaps or openings in the spray pattern that allow flue gas to bypass the spray zones without contacting the slurry. Many of these gaps are on the outside of the absorber near the absorber walls. These gaps provide a direct path for the flue gas to bypass the slurry spray.

EPP composites manufactures spray systems with the following materials:

- Full GRP
- Full GRP protected by thermoplastic or fluoroplastic
- PP/GRP
- PP



Older generation spray header designs used a support system that was prone to breakage which causes the header sections to fail and fall to the bottom of the absorber. More current designs use self-supporting spray headers with much larger (up to 60 ft [18.3 m]) spans. As a result, replacing the spray headers with a self-supporting design can result in reduced maintenance costs and outage time. These new generation spray headers can be fabricated from fiber-reinforced plastic (FRP as a cost-effective solution.







Ducts & Slurry Piping

EPP Composites is able to design, supply, assemble and install ducts at power plants. We are familiar with providing ducts to the power market, including for the FGD and CSS processes.

Ducts can be manufactured on-site or in one of our workshops.

We assemble ducts from the absorber to the chimney or cooling water tower.

EPP Composites also provides :

1. 90° Elbow with internal vanes
2. Segmented elbow
3. Transition pieces

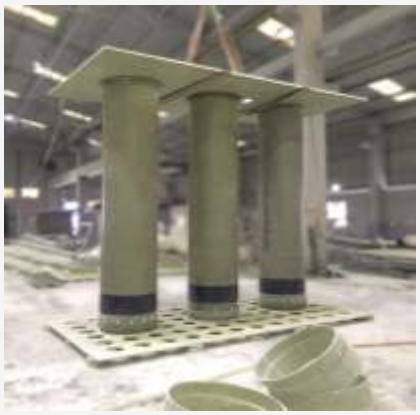




Deck Panel & Mist Collectors

Deck panels for FGD systems incorporate critical application parameters, low dimensional tolerances, and high performance in elevated temperatures. Composite deck panels are faster to install compared to other materials. FRP surfaces are designed to resist wear due to corrosive and abrasive influences. EPP-manufactured decks have long operational life.



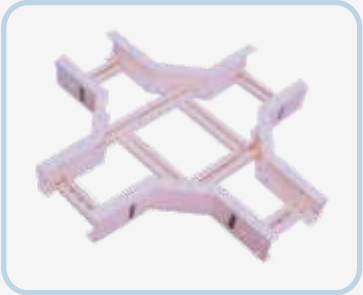




Other Product Solutions for Thermal Power Plants



FRP Tanks & Vessels



FRP Cable Tray



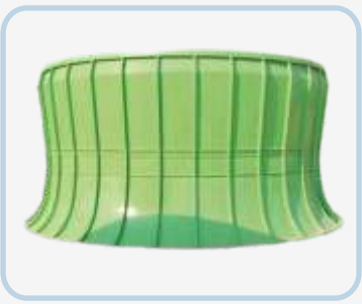
GRP Pipe & Fittings



FRP Duct



FRP Fencing



FRP Stack



FRP Blower



FRP Pultruded Staircase



FRP Process Pipe



FRP Air Pollution Control System



FRP Lighting Poles

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