



# piping process, equipment and piping, pipe support selection, piping engineering, piping design

- [Plot Plan and Equipment](#) Layout
  - We Provide services towards creating Plot plan (Showing Buildings, Utility runs, Position of roads, Trench layout, Employee entrance), Primary document used in design of a FEED and Greenfield project.
  - We develop Equipment layout (Showing Space for Equipment, Accessibility, Removal space, Cleaning area, Storage space and handling facilities) for all Process Industries (Power, Oil & Gas, Chemical etc.) in line with PFD, P&ID.
- 3D Modelling of Equipment and Piping
  - We create 3D Modelling of Equipment (Vessels, Tanks, Columns, Exchangers), Plant Piping layout/Routing, generating isometrics, Pipe Spool with reference to client PFD, P&ID and Client data sheets.
  - Provide suggestion on existing Pipe routing, Optimization of piping runs, Type of supports to be used without affecting basic functionality of the system.
- 3D Model Review
  - Provide 30%, 60% and 90% Model review and client submission to help and Check provisions for safe operation and maintenance.
- GA Drawings & Isometric Drawings
  - We develop General arrangement drawings for Plant, Civil, Structural, Equipment, Piping based on client preliminary input.
  - Provide tentative Bill of Materials to support procurement activity
  - We Support to generate Piping isometrics used for preliminary Bulk Material Take Off (MTO).
- Pipe Stress/Flexibility Analysis & Pipe Support Selection
  - Help to establish Operation integrity of the piping system (By limiting nozzle loads within allowable values).
  - Provide Optimal design (By avoiding excessive flexibility and high loads on structure).
  - Advise on type of flexibility to be adopted for thermal loading (By providing expansion loops).
  - We advise in design of support to reduce stress in piping system.
  - Provide data sheets for special supports like Sway brace, Struts, Snubbers, Spring Hanger.

- [Process Skid Design and Detailing](#)

- We support in generation of PFD and P&ID showing process parameters, Battery limits for Process skid with reference to client process requirement.
- We generate General arrangement drawing for process skid, showing Tie-in points, Orientation, Elevation of inlet and outlet nozzles.
- Support in base frame analysis to establish operational integrity of the system.
- Equipment layout, Pipe routing as per P&ID, Base frame design, Generation of Isometrics, Fabrication detailing

