Plant Engineering India

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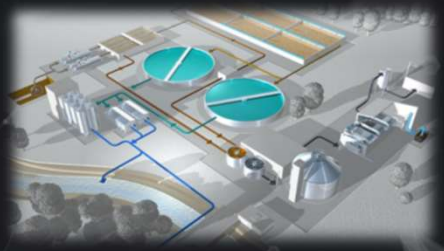
Design & Detailing Services

Water treatment plants
i.e. STP, ETP, WTP, WWTP

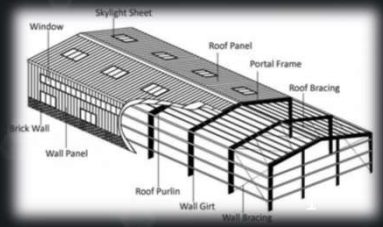


Skid mounted
piping systems

Plant 3D Piping Design &
Detailing

Plant & Domestic
Civil & Architecture Design, MEP
BIM Modelling

Steel Structure 3D Design &
2D Detail Engineering



Plant Engineering India

SOFTWARE SKILLS & TECHNICAL PROFICIENCY USING BELOW APPS FOR DESIGN, MODELLING & DETAILING

Experts In The Below Mentioned Softwares Effectively For India & International Customers.

Executed many India & International Projects India, Australia, USA, Singapore, Italy, etc.

- Autodesk Plant 3D
- AUTODESK BIM 360
- Autodesk MEP
- revizto
- Advance Steel
- Navisworks Manage

Plant Engineering Capabilities

1

Piping Design For & Detail Engineering Services For Water Treatment Plants

We Support Executing Basic Engineering And Detail Engineering including Intelligent 3d Modelling and 2D Detailing For Water Treatment Plants, i.e. STP, ETP, WTP, WWTP

We Support For Complete Design And Detail Engineering For Water Treatment Plants Since We have Wide Exp. In The Same Field

2

Piping Design For & Detail Engineering Services For FMGC Plants Using ASME BPE Codes

We Have Wide Design & Detail Engineering Experience For FMGC Plants Using ASME BPE Codes Which Incudes Design Of All Kind Process Vessels, Design Of CIP Piping Systems, Utility And Complete Process Piping Systems Which Includes Piping Design Calculations, line Size Calculations

3

Process & Utility Piping Design For All Kind Of Plants

We Commonly Support For All Domains In Executing Piping Design & Detail Engineering, As Follows, Plant Equipment Layouts Development, Plant Piping, Plant Inelegant 3D Modelling, Generating Isometrics, IBR isometrics, BOM, Spool Drawing, Supports Layout, Supports Fabrication Drawing, Custom Supports Design & detailing.

4

Industrial Civil Design & Detailing Services

Civil Steel Structural Design Calculations, Foundation Design, Building Design, Design Validation, Detailing Of Steel Structures, Design, Analysis Of RCC & Steel Structures, Design Of Pipe Rack / Bridge, Evaluation Existing Building

5

Design, Development & Detail Engineering Of Skid Mounted Piping Systems.

Pump Skids, CIP Skid, Pasteurizer Skids, Process Piping Skid With Hygiene Concepts Skid Generally Includes, Pumps, Plate Heat Exchangers, Vessels, Special Mechanical Equipment, etc. Skid Based

6

Vessels Design & Detailing

Generally Vessels Design Includes All Calculations As Applicable Standards Like ASME, IS, API.

Detailed Engineering Activities

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Piping Design For Plant Skid Based Piping System

- Basic engineering Drawings / Documents
- Process and instrumentation diagrams development.
- Preparation process / Utility calculations, ex: pipe line sizing, calculations for pumps etc.
- Preparation of proposal layouts
- Preparation plot plant
- Preparation of all mechanical, civil equipment and layout drawings
- Preparation of detailed fabrication drawings.
- Preparation of
- Preparation of line list, valve list, document list etc.
- Preparation Piping Material Specifications.
- Complete AHU, Ventilation 3d duct routing modelling using REVIT and CAD MEP and detail engineering

Mechanical Design

- Equipment general arrangement & fabrication drawings.
- Preparation of equipment data sheets.
- Preparation of equipment Fabrication Drawings.
- Applicable Codes are ASME, API, IS...
- Pipe Rack Design
- All types of pipe supports
- design and detailing.

Civil/ Steel Structural

- Design of RCC & steel structures for industrial & residential
- Design of pre engineering building (PEB)
- Design of structural evaluation of existing building with NDT tests, feasibility study reports and BOQ
- Retrofit projects for strengthening of existing building.
- Inspection & evaluation of existing building / factory
- Civil & steel design calculations.
- New design dimensions / fit / functional applied to product metrics
- General building layout drawings.
- Drain layout drawings.
- Plot plan, equipment layout, foundation layouts.
- Validation existing building / drain layout
- Complete design & analysis of buildings
- Includes concrete & steel structures
- Revamp engineering
- design

- Industrial Steel and RCC Structures
- Connection Designs
- Lattice Structures
- All Types Foundation Design
- Earth Retaining Structure Design
- Blast resistant structure

As-built 2D / 3D

All cad based As-built piping drawings 2d and 3d services for

Implementing Scan To BIM using Clear edge software)

Electrical

- Electrical Load list
- Cable tray layouts
- Cable tray BOM
- 3D modeling and 2d detailing
- Lighting Calculations

Project Planning & Sharing Project REPORTS

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1) All conversion jobs ex: plant 3d model to Revit conversion
2) We can create pipe fittings libraries (Revit families) in Revit for all categories to carryout piping project in the Revit
3) We can create all kind of equipment Revit families using Revit assigning nozzle connectors.
4) We can assign all COBie parameters for respective categories families.
5) Generating Schedules & Quantities with required customization
6) We are familiar with Revit Interoperability for BIM projects execution
7) We are familiar with Global, Project and Shared parameters
8) Clash detection and resolution in Revit for all categories
9) Modelling of Revit MEP facilities precise 3d coordination models for plumbing, HVAC, Electrical, Fire protection and mechanical components
10) Civil & steel structure modelling in Revit
11) Generating 2d floor wise layout drawings, construction drawings, 1
12) We are familiar wit all LOD levels modelling process.
13) We are familiar with BIM 360 and cloud network modelling
14) We are familiar with BIM 5D models which is for cost estimation.

Project Planning & Sharing Project REPORTS

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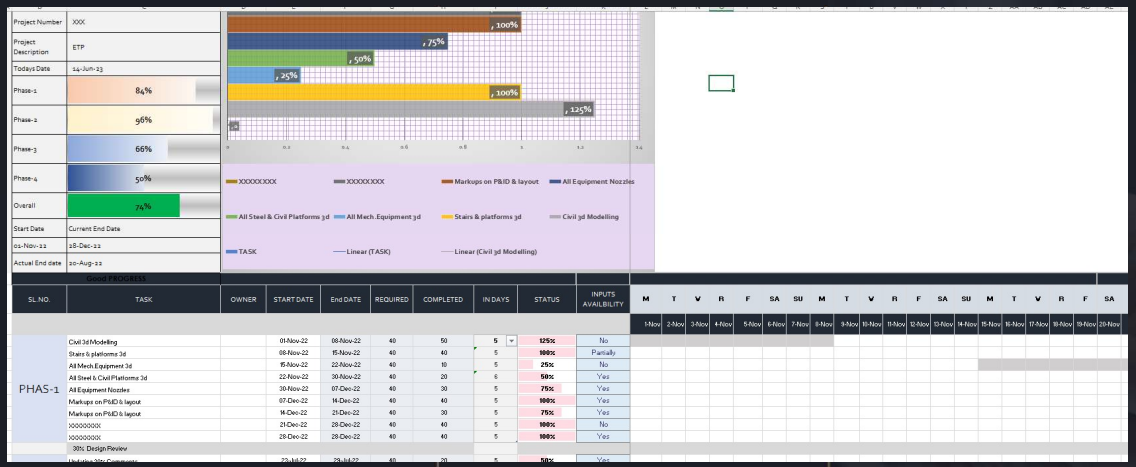
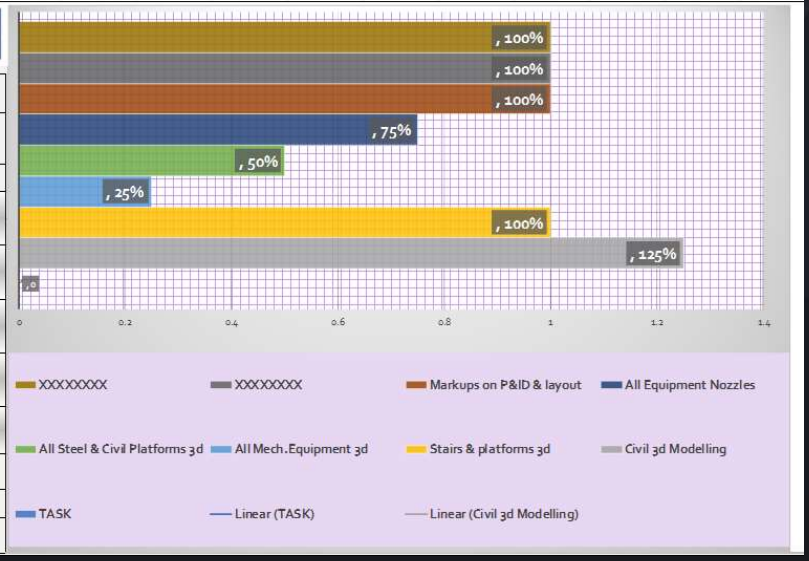


Project Number	XXX
Project Description	ETP
Todays Date	14-Jun-23
Phase-1	84%
Phase-2	96%
Phase-3	66%
Phase-4	50%
Overall	74%
Start Date	Current End Date
01-Nov-22	28-Dec-22
Actual End date	20-Aug-22



Industries We Serve

- Water Treatment Plants
- FMGC Plants
- Oil & Gas
- Cement Industries
- Chemical Plants
- Power Plants