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# Company Profile

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## About Us

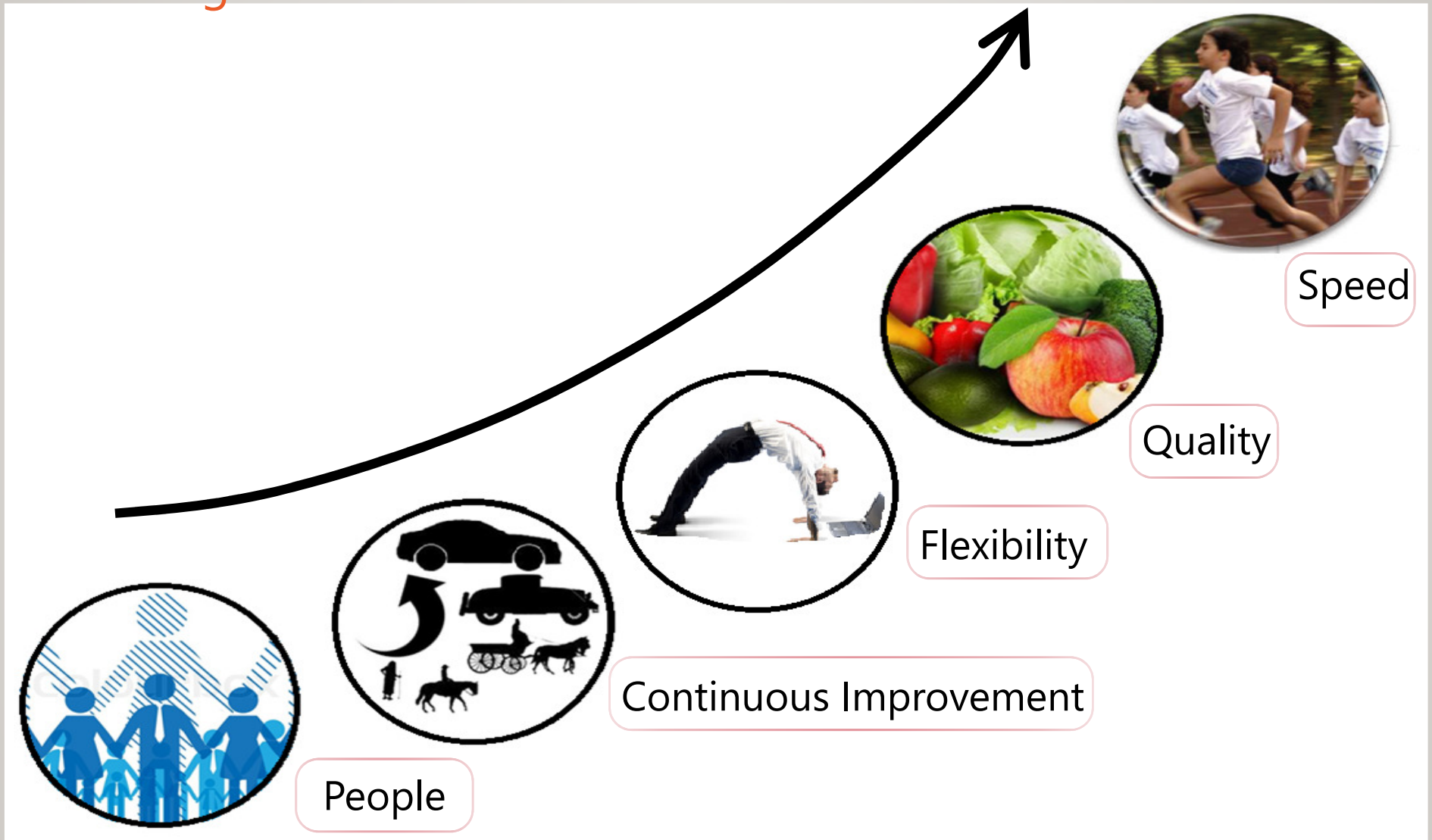
We aim high being focused on building relationships with our clients and business community. we focus on and implement the same with our employees through our innovative ideas.

We are pleased to tell you that we are successful in sustaining our quality team as an 'Asset' to our future. It eases us to even aim high to reach miles in the industry. At Desteq Engineers, our value system makes us an engineering firm dedicated to delivering results with

- Precision
- Low turn-around time
- Commitment
- Accountability
- Quality

These are our biggest strengths, and which make our clients trust us. We also believe in going the mile for them, right from the first interaction to the last, we work closely with them to fulfill their requirements to their satisfaction.

# Our Strength



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## Our Solutions

With rising costs, every company needs an engineering partner capable of shortening their product development time to offer them an early edge in the competitive business ecosystem.

When you align with us, we offer you tangible benefits born out of our years of experience in the field.

- Extended Office
- Right the first time
- Reduced time-to-market
- Technical due assiduity



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## Key Area

At Desteq Engineers, we provide engineering services for

- Refineries, Oil and Gas plants
- Petrochemicals and Fertilizers
- Chemical Plants
- Cement Plants
- Architectural Designs & Services .....

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## Key Area

At Desteq Engineers, we provide engineering services for.....

**REFINERY**



**OIL & GAS**



**AMMONIA PLANT**



**METHANOL REFORMER**



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## Key Area

At Desteq Engineers, we provide engineering services for.....

**CAUSTIC SODA**



**CHEMICAL**



**FERTILIZER**



**STORAGE & TANK FARM**





# Our Services

At **Desteq Engineers**, we provide wide range of engineering services for

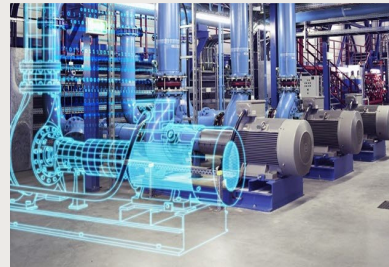
Piping  
Engineering



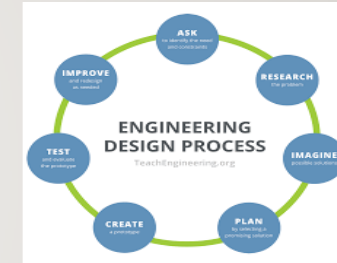
Civil /  
Structural



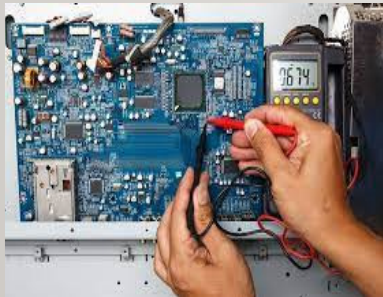
Static & Rotary  
Engineering



Process Engineering



Instrumentation  
Engineering



Electrical Engineering



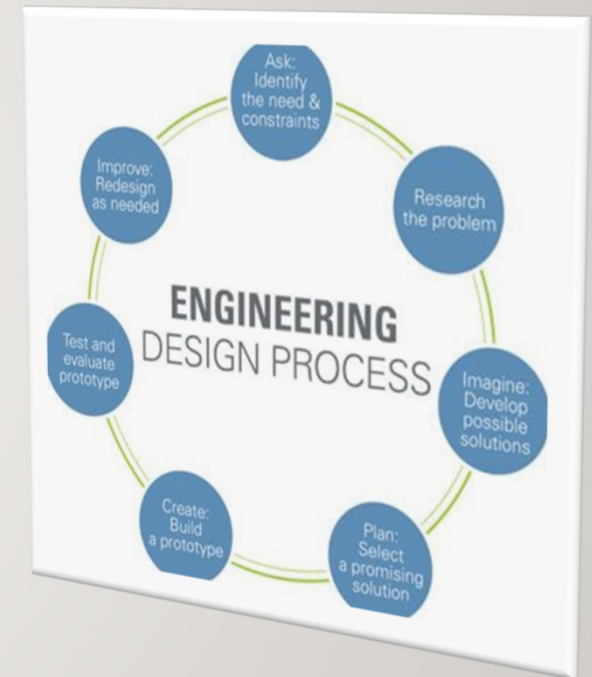
# DESIGN & ENGINEERING SERVICES

- Basic Engineering Design.
- Process Engineering.
- Mechanical Design & Engineering
- Piping Engineering & Stress Analysis (Thermal & Flexibility)
- Civil & Structural-Design, Analysis & Engineering
- Electrical & Instrumentation(E&I) Services
- 3D Modelling by using various software



# BASIC ENGINEERING DESIGN AND **DETAIL** **ENGINEERING SERVICES**

- Preparation of process and Instrumentation Diagrams (P&ID), PFD
- Mechanical data sheets of the main equipment, Process & Thermal Design(Equipment)
- Development of process and utility Piping and Instrument Diagrams released for detail engineering
- Development of detailed drawings related to mechanical, instrumentation, electrical facilities, civil & structural works
- Plot plan, Equipment layout & Piping Study
- Piping GA Drawings & Piping Routing, Piping Isometrics & Support Drawings
- 3D Modelling Services.



# PROCESS ENGINEERING

- Is the art of transforming raw materials into useful products using chemical or biochemical reactions, heat, cold, fermentation, etc.
- We use various tools and methods, such as process simulation, process control, process safety, process optimization, process analytics, etc., to achieve the goals.
- Preparation of process and Instrumentation Diagrams (P&ID), PFD.





# MECHANICAL DESIGN & ENGINEERING

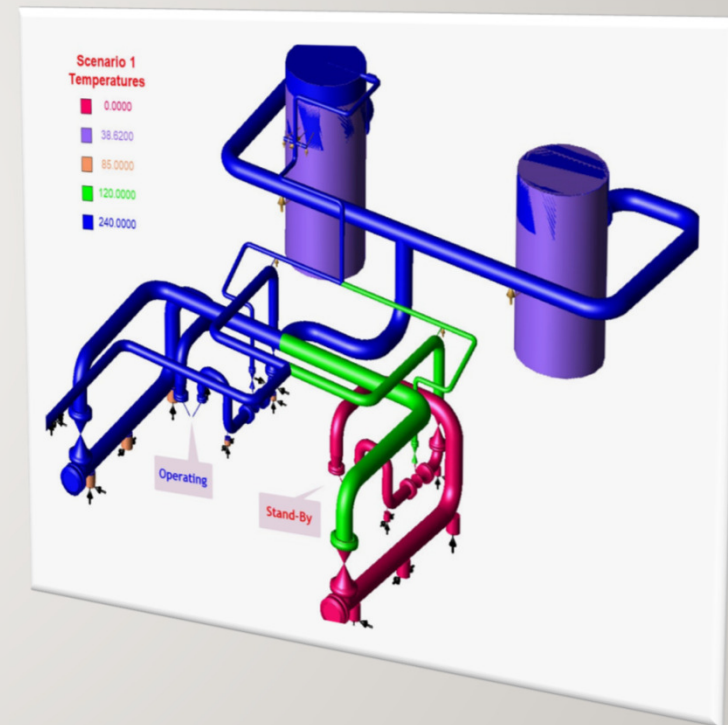
- Mechanical Design of Pressure Vessels, Tanks, Distillation Columns, etc. includes - Design Pressure Vessels (ASME SEC VIII Div 1 & 2, PD5500 etc) & Design Tanks (API 650, 620 etc.).
- Thermal & Mechanical Design Of Heat Exchanger, Mechanical data sheet preparation, GA drawings.
- Strength Calculation by using in house programs/ PV ELITE.
- Preparation Detailed/Fabrication Drawings, BOM, CFD analysis, Finite element analysis(FEA).





# PIPING ENGINEERING & STRESS ANALYSIS (THERMAL / FLEXIBILITY)

- Pipe stress and flexibility analysis for Metallic & Non-metallic pipes.
- Vibration Analysis, Steam & Water Hammer, Sea Wave load spectrum, Safety Valve Reaction Force.
- Critical piping support- calculation, designs e.g. Constant and variable spring hangers, studs, rod hangers / bottom support.
- FEA-Piping equipment or special fittings, nozzle flexibilities, allowable nozzle loads, stress intensification factors, Flange leakage calculation.



# CIVIL & STRUCTURAL DESIGN, ANALYSIS & ENGINEERING

- Process plant and Non plant building design
- Dynamic Analysis of structure and FEM Analysis.
- Preparation of Load Data and design of supporting structure, Plant, and process buildings.
- Engineering for piping & ducting supports, Heater, Plant buildings, conveyor & pipe rack supports.
- Offshore Engineering.
- Structural Steel Detail fabrication drawing, BOM/MTO
- Reinforced concrete framed structures, Equipment, and machinery foundations drawings.
- Cable and pipe trenches and tunnels, Roads, pavements, grading plan, and drainage system.



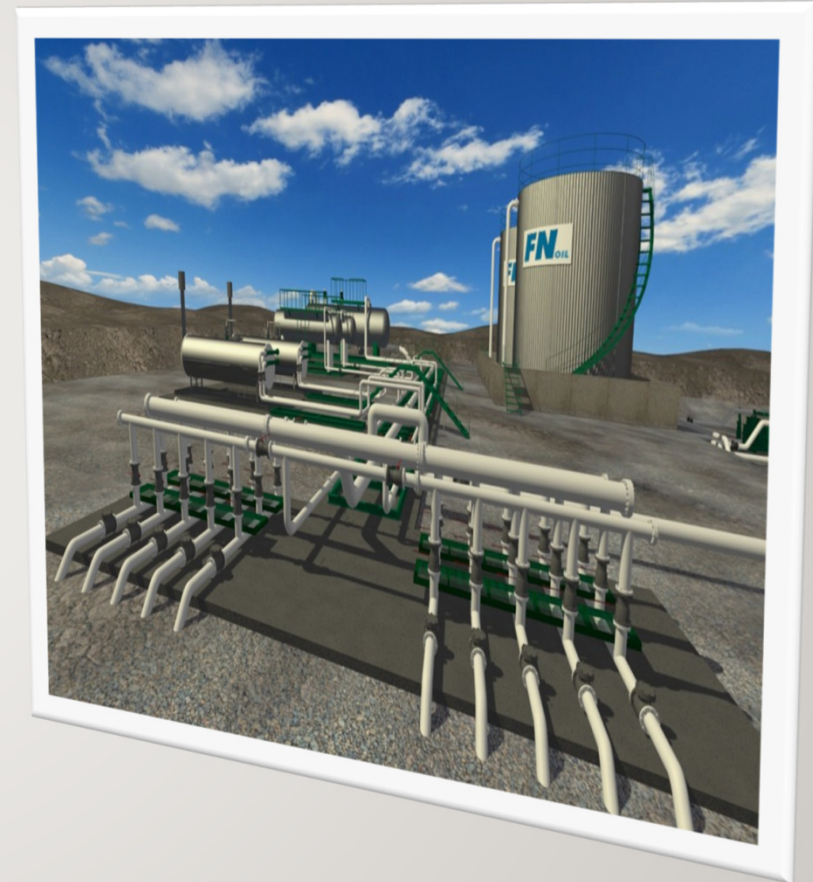
# ELECTRICAL & INSTRUMENTATION (E&I) ENGINEERING

- Cable tray / trench layouts, Earthing layouts, Cable routing layouts, Lighting (indoor / outdoor) layouts, Motor Control Centre Design.
- Preparation of project specification, load flow studies, Motor Specifications & Datasheets, Plant Wide Power Distribution Drawings.
- Instrument- Schedule / List, Specifications & Datasheets.
- Plant Operation & Control Philosophy, PLC/DCS Control Loop Narrative.



## 3D MODELING SERVICES

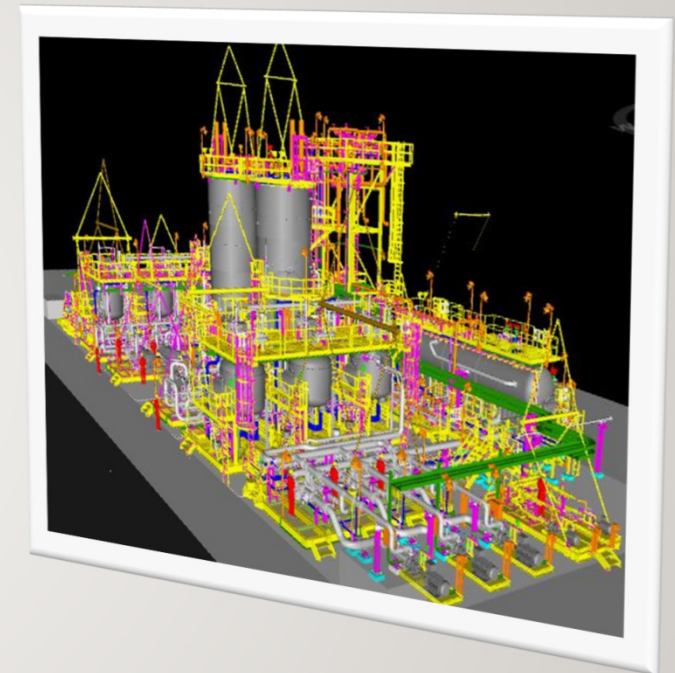
- 360-degree views for Piping, Equipment, Cable Trays, Steel, Concrete Structures, Pipe Rack, Electrical Raceways, Supports for interfering/clashing detection & mitigation.
- Multiple Software tools available such as Intergraph SP3D, AVEVA PDMS, E3D, AutoCAD, Autodesk Navisworks and many more .
- Reviews are performed i.e. typically at 30%, 60% & 90% with clash detection report to resolve clashes & exact views of plant for operation, safety & maintenance.
- Higher quality control across all disciplines.





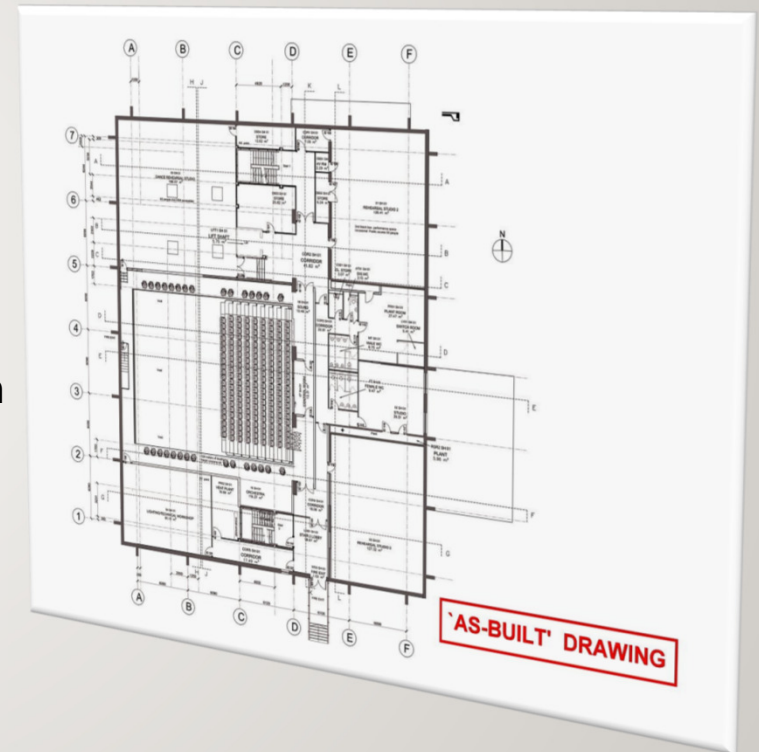
## SKID DESIGN, ANALYSIS & DETAILING

- Skid design will comply with international standards & customer specifications Ensure safe lifting, transportation and operation.
- Complete fabrication drawings for skid structure, piping spools, piping supports, MTO.
- Optimize skid costs, by reducing unnecessary costs & Ensure sufficient stiffness (at key locations) to avoid vibration problems for components mounted on the skids.



# AS BUILT DRAWING PREPARATION

- Complete range of As-Built 3D modelling services for piping, structures, equipment, electrical & instrumentation.
- As built drawing documentation provides ability to review & upgrade facilities without physically visiting location.
- Capturing Construction deviation from construction documents.
- As built drawing through actual measurement of construction.



## Details of Employee:

Sr. No.	Designation	Discipline	No. of Employees	Experience
1	Project Engineer / Manager	Project	2	10+
2	Process - Manager (HOD)	Process	1	10 to 15
3	Sr Process Engineer	Process	1	8 to 10
4	Process Engineer	Process	2	3 to 8
5	Piping - Manager (HOD)	Piping	1	10 To 15
6	Sr Piping Engineer	Piping	2	8 to 10
7	Piping Engineer	Piping	6	3 to 8
8	Piping Lead Designer (3D Software)	Piping	2	8 to 15
9	Piping Designer (3D Software)	Piping	7	3 to 8
10	Instrumentation - Manager (HOD)	Instrumentation	1	10 to 15
11	Sr Instrumentation Engineer	Instrumentation	1	8 to 10
12	Instrumentation Engineer	Instrumentation	2	3 to 8
13	Instrumentation Lead Designer (3D Software)	Instrumentation	1	8 to 15

## Details of Employee:

Sr. No.	Designation	Discipline	No. of Employees	Experience
14	Instrumentation Designer (3D Software)	Instrumentation	2	3 to 8
15	Electrical - Manager (HOD)	Electrical	1	10 to 15
16	Sr Electrical Engineer	Electrical	1	8 to 10
17	Electrical Engineer	Electrical	2	3 to 8
18	Electrical Lead Designer (3D Software)	Electrical	1	8 to 15
19	Electrical Designer (3D Software)	Electrical	2	3 to 8
20	Sr Civil Design Engineer (HOD)	Civil	1	12 to 15
21	Sr Civil Design Engineer	Civil	4	3 to 8
22	Sr Structural Engineer - Manager	Structure	2	12 to 15
23	Structural Design Engineer	Structure	4	3 to 8
24	Civil Lead Designer (3D Software)	Civil	3	8 to 15
25	Structural Lead Designer (3D Software)	Structure	5	8 to 15
26	Civil Designer (3D Software)	Civil	7	3 to 8
27	Structural Designer (3D Software)	Structure	7	3 to 8



## Details of Employee:

Sr. No.	Designation	Discipline	No. of Employees	Experience
28	Mechanical - Manager (HOD)	Mechanical	1	10 to 15
29	Sr Mechanical Engineer	Mechanical	1	8 to 10
30	Mechanical Design Engineer	Mechanical	3	3 to 8
31	Mechanical Lead Designer (3D Software)	Mechanical	1	8 to 10
32	Mechanical designer (3D Software)	Mechanical	4	3 to 8
33	Quality Support & Document Control	Documentation	1	3+

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## Completed Project

- CTC Plant, GACL

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Details:	Complete engineering for the plant including process, mechanical, piping, E & I and civil & structural
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Software	PDMS 12.0.SP3, Caesar, HTRI, PV Elite, Staad, Mat 3D, Tekla, AutoCAD
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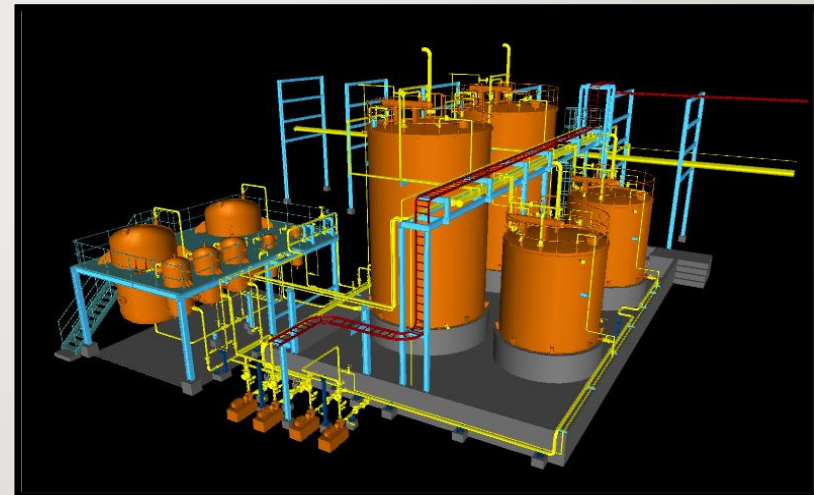
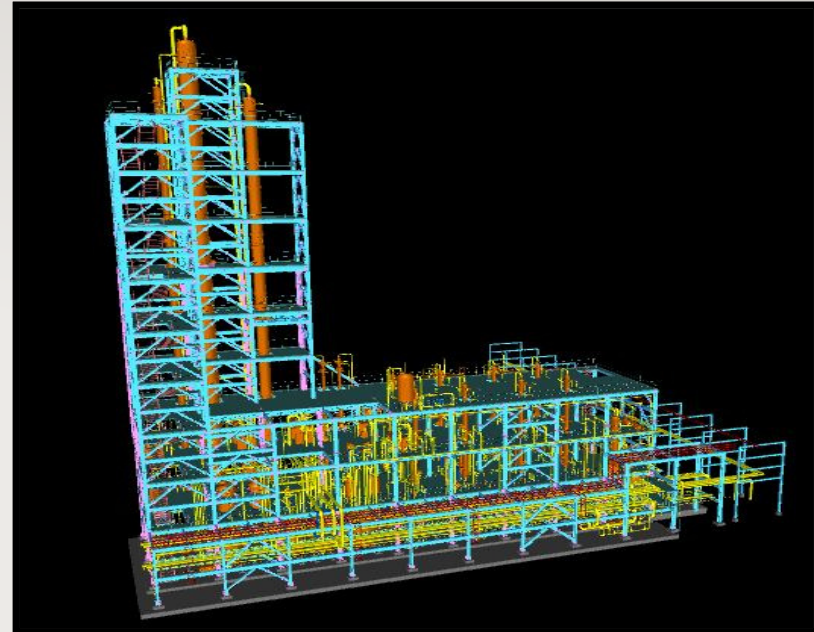
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Location :	Dahej, Gujrat
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Scope of Work:	<ol style="list-style-type: none"><li>1. Engineering</li><li>2. To prepare tender document and technical bid evaluation</li><li>3. To provide construction management.</li></ol>
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## Completed Project

Project Title: Mounded Bullet, For PP Unit Project At GAIL

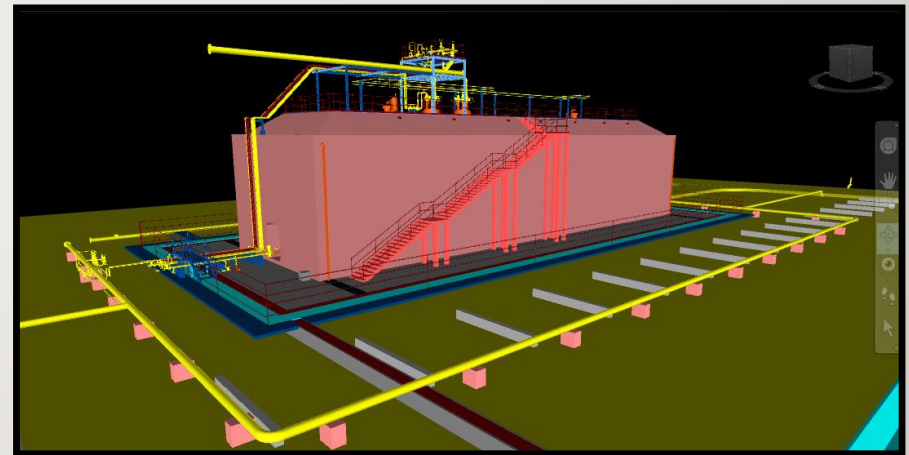
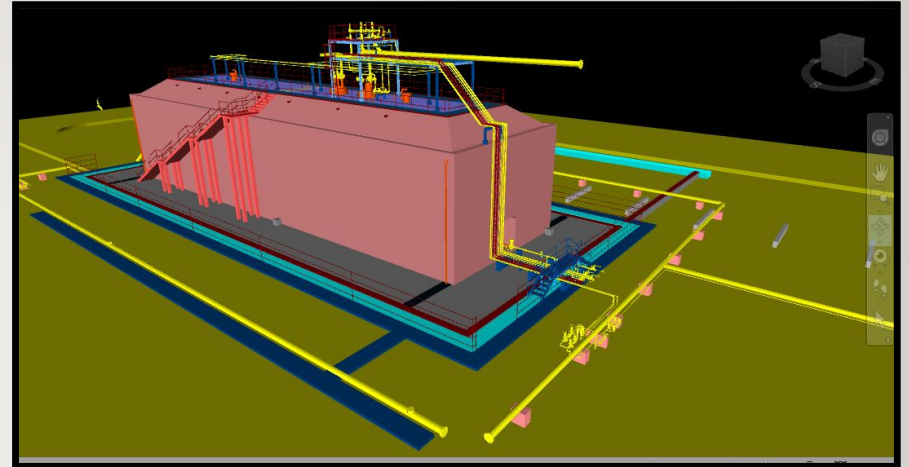
Details: Complete engineering for the plant including mechanical, piping and civil & structural

Software PDMS 12.0.SP3

Location : PATA,UP

Scope of Work:

- 1.Engineering
2. To prepare civil and steel structure.
3. To provide construction management.
- 4.Piping modelling
- 5.Piping GA and Equipment GA.
- 6.Stress analysis & Final BOM



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## Completed Project

- NRL CDU/VDU

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Details: Complete engineering for the plant including Mechanical, piping, E & I and civil & structural

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Software SP3D 2016, Caesar, HTRI, PV Elite, Staad, Tekla, AutoCAD

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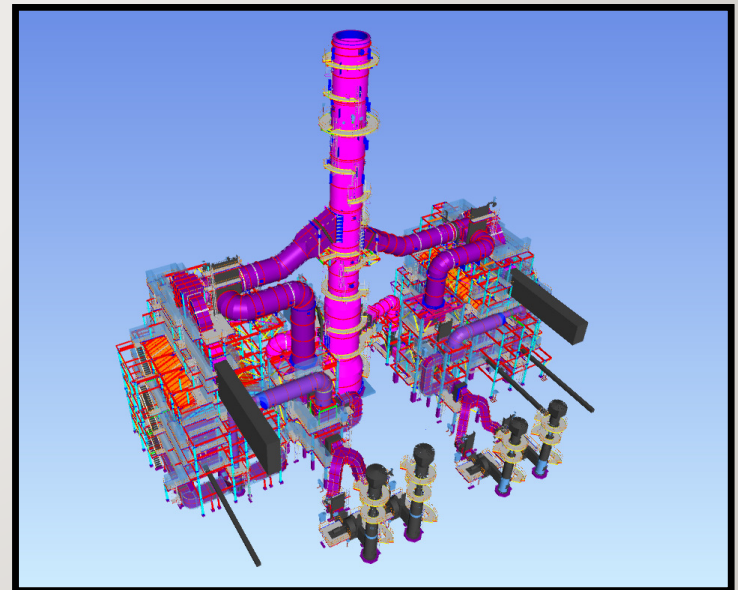
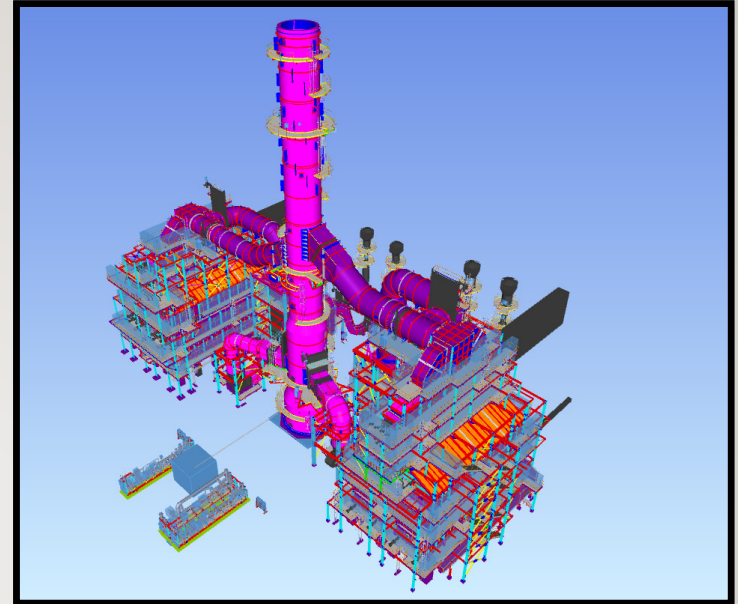
Location : Assam

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Scope of Work:

1. Mechanical, E & I, Piping and Structural Engineering
2. To prepare Design of Heater structure and Auxiliary equipment support structure
3. To prepare GA & fabrication drawing
4. To prepare E & I cable layout

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## Completed Project

- CTS PLANT, GACL

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Details: Complete engineering for the plant including Mechanical, piping, E & I and civil & structural

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Software PDMS 12.0.SP3, Caesar, HTRI, PV Elite, Staad, Tekla, AutoCAD

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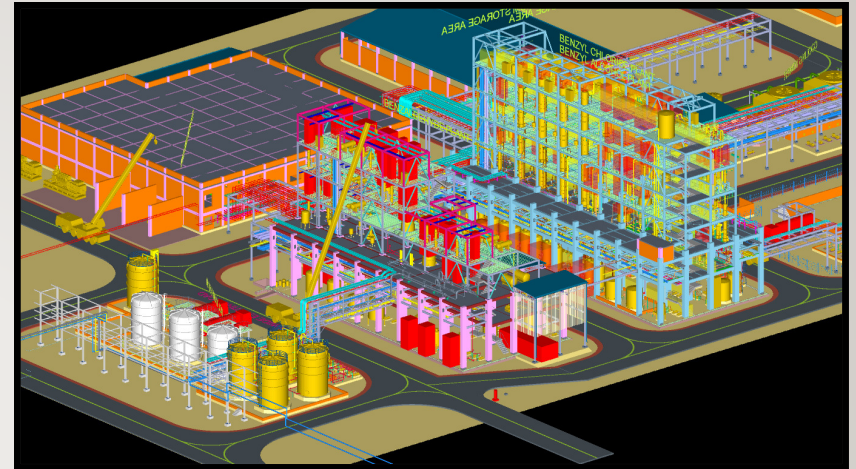
Location : Dahej, Gujrat

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Scope of Work:

1. Engineering
2. To prepare tender document and technical bid evaluation
3. To provide construction management.

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## Completed Project

- NRL REFORMER

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Details: Detail engineering for the plant including Mechanical, and civil & structural

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Software SP3D 2016, Staad, Tekla, AutoCAD

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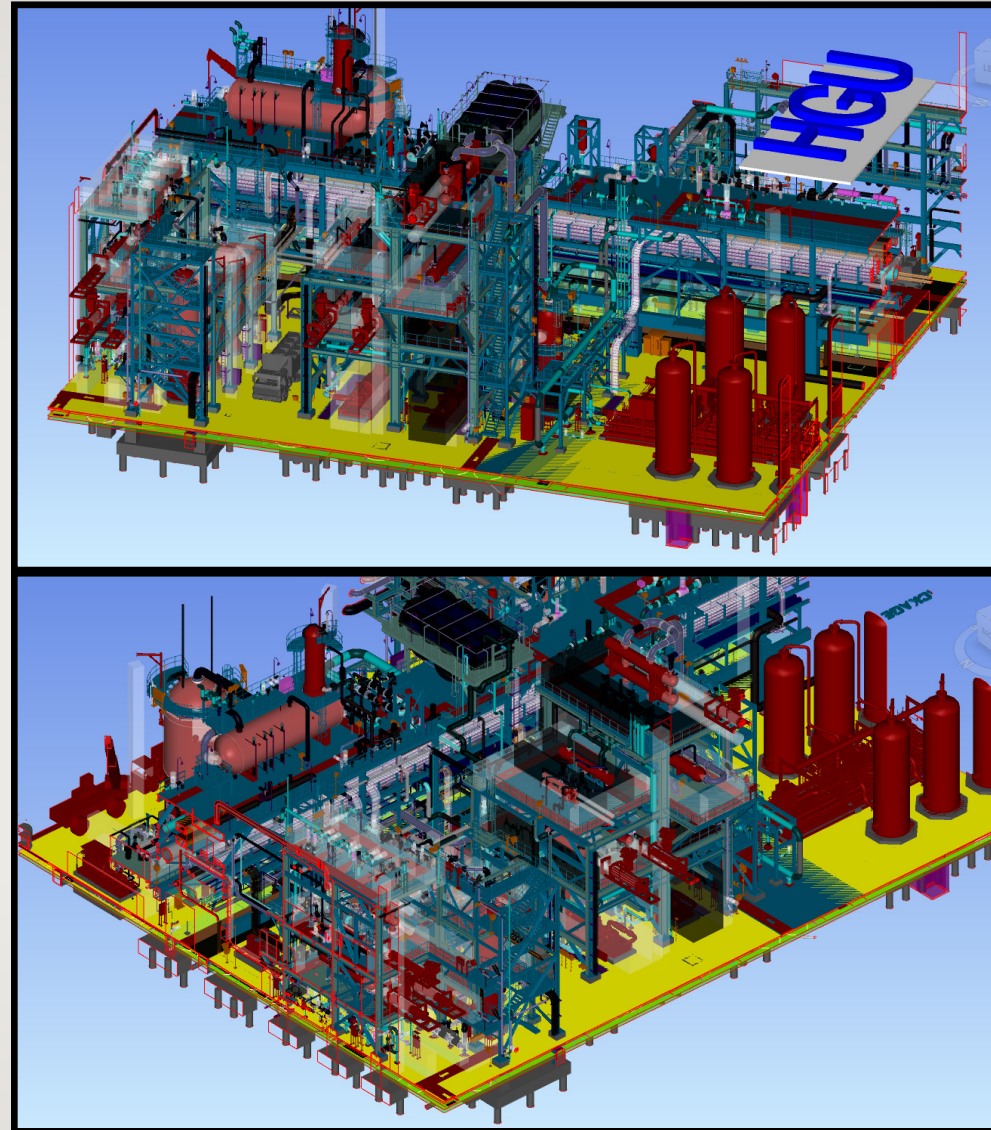
Location : Assam

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Scope of Work:

- 1.To prepare design for HAD, CAD & FG duct
2. To prepare design of structure and foundation
3. To prepare GA & fabrication drawing for Reformer Package

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# Completed Project

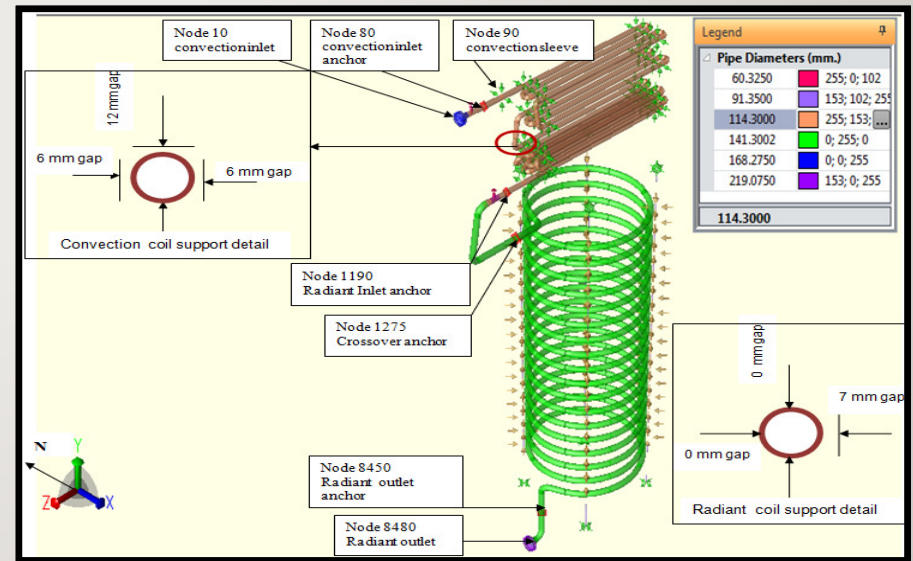
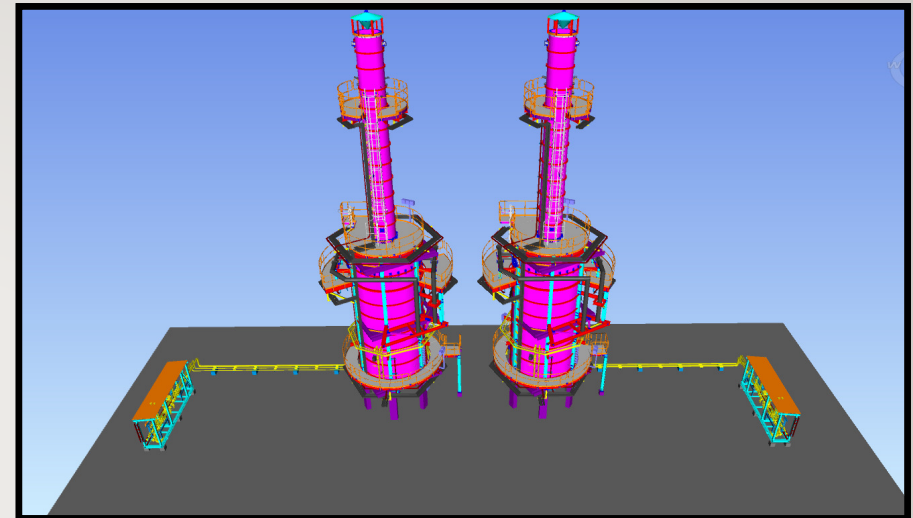
- WET CRUDE HEATER

Details: Complete engineering for the heater including process, mechanical, piping, E & I and civil & structural

Software PDMS 12.0.SP6, Caesar, HTRI, PV Elite, Staad, Tekla, AutoCAD

Location : Iraq

Scope of Work: 1. Complete Engineering  
2. To prepare GA & fabrication drawing for structure, DUCT, ETS etc  
3. To prepare coil drawing, piping Isometrics, BOQ etc.





## Completed Project

### Regeneration gas heater.

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Details: Complete engineering for the heater including process, mechanical, piping, E & I and civil & structural

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Software SP3D 2016, Caesar, HTRI, PV Elite, Staad, Tekla, AutoCAD

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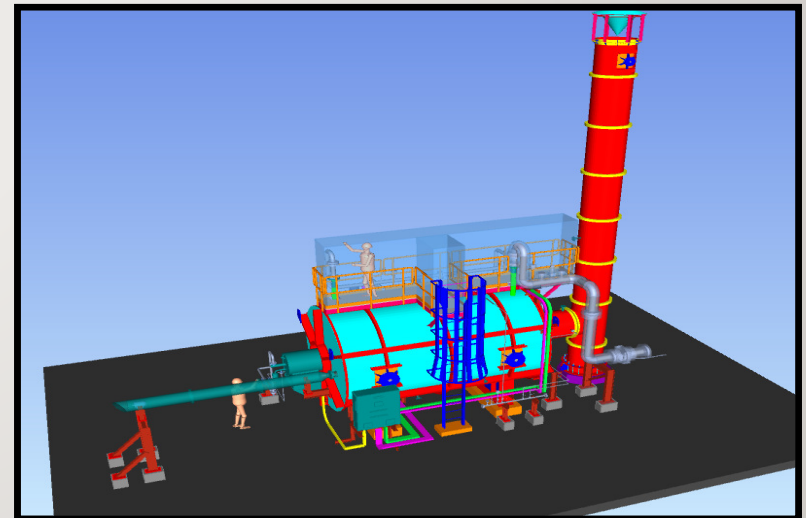
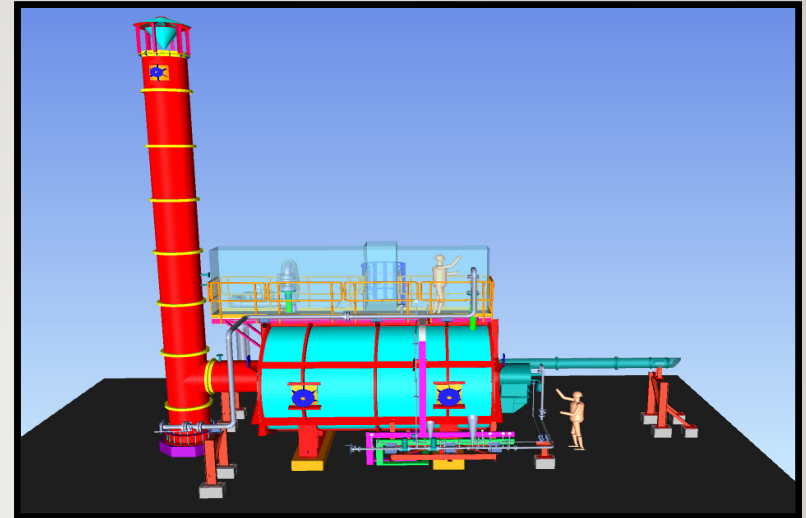
Location : Congo, Africa

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Scope of Work:

1. Complete Engineering
2. To prepare GA & fabrication drawing for structure, DUCT, ETS etc
3. To prepare coil drawing, piping Isometrics, BOQ etc.

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## Completed Project

### Acetylene Generation Plant, Mundra Petrochem Ltd

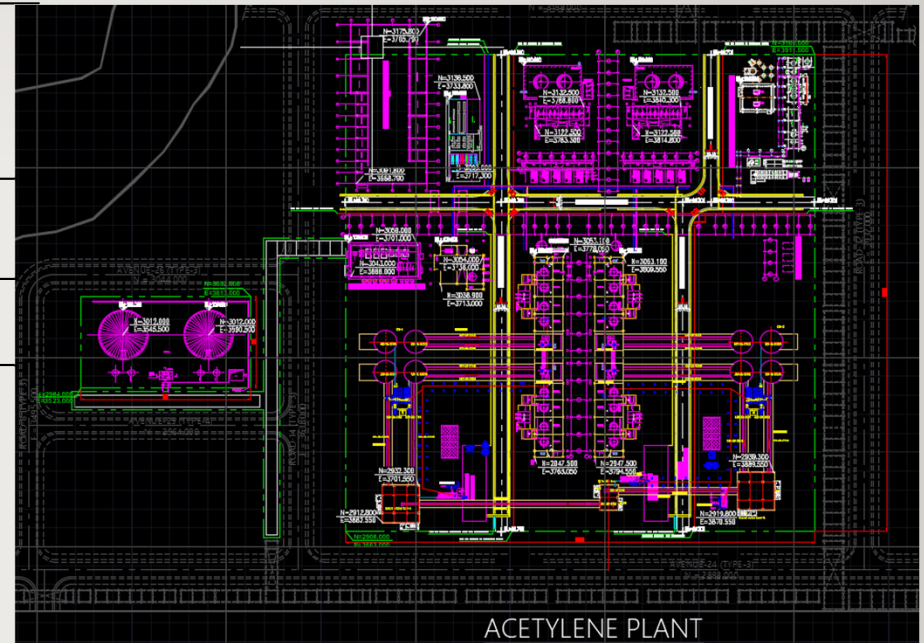
Details: Complete Civil & Structural engineering for Acetylene Generation Plant

Software: Staad, RCDC, Mat 3D, Tekla, AutoCAD

Location: Mundra, Gujarat, India

Scope of Work:

1. Complete Civil, Structure & Architectural services
2. Design of equipment & structure foundation
3. To prepare structural design for RC structure, Silo, Conveyor, Trestle, Transfer tower, Substation, Blast resistant Building, piperack etc
4. To prepare RC layout, GA & fabrication drawing, detail BOQ
5. UG Services like drain, road, paving etc



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## Completed Project

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Project Title: New Hydrobon Heater, TPL.

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Details: The complete Mechanical, Piping and Structural Engineering was in our scope for this project.

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Code Indian

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Location : TPL, Tamilnadu

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Scope of Work:

1. Mechanical GAD
2. Coil Drawing
3. Refractory vendor drawing review
4. Structural Design
5. Structural GA and fabrication drawing
6. Coil FN
7. Piping layout/Isometric.

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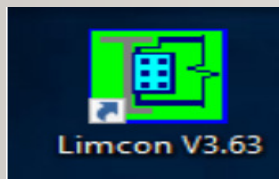
## Codes & Standards:-

Follows all international codes and standards is the reference for design engineering all over the globe, flexible as per client requirements-

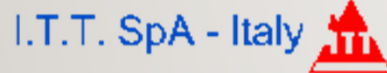
- AISC / IS800 / BS5950 & API 560
- ACI 318M-08, IS456, BS8110
- ASCE 7-05, IS875, IS6533, CICIND
- BS6399, BS5400 & IS1893, IS13920
- ASME B31.1 / 31.2 / 31.3 / 31.4 / 31.8 / 31.9
- ASME Section VIII, Div.1 / Div.2, API STD 650 / 620 / 2000
- TEMA
- PD-5500
- BSEN 10025 | BS5950 | BS8110
- IS456 | ACI 318
- IS800-1984 (WSM) | IS800-2007 (LSM) EURO CODE 3 | AS 4100 | UBC etc.

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## Software's



## Our Major Clients





# Words of Appreciation

Name of Job : Engineering of TPL Heater

Client : Tecnicas Reunidas

## **DESTEQ ENGINEERS**

(619,Lodha Supremus 2,North Tower, road number 22,wagale estate, Thane(w)-400604)

### **QUALITY POLICY**

With an experience of more than five years Desteq Engineers is committed only in building long term relationship with customers .With this principle our quality policy is born with consistent commitment to the satisfaction of client through continual improvement in method Processes and resources and relevant statutory requirements.




Director

(Sandeep Deshmukh)



Date:05.02.2019

**TECNICAS REUNIDAS**

**Técnicas Reunidas Engineers India Private Limited**  
#133/1, The Residency  
34 Floor, Residency Road,  
Bangalore-560 023,  
Karnataka, INDIA  
Tel. (91) 80 67207000 Fax (91) 80 67207077

**WORKS COMPLETION CERTIFICATE**

This is to certify that M/s Desteq Engineers (TR PO Reference: 3700523010) has satisfactorily completed the Detailed Engineering Activities including review of vendor drawings for a Fired heater job of M/s. Tamilnadu Petroproducts Limited, Manali, Chennai within the allotted schedule.

Scope of work for M/s. Desteq Engineers (formerly known as M/s. Vatsalya Engineers and Construction): Structural Engineering, Preparation of all Drawings including Coil Drawings, checking vendor drawings (mainly of damper and refractory).

We take this opportunity to appreciate the sincere efforts put in by the team of M/s. Desteq Engineers to ensure the quality of engineering documents and timely submission of the deliverables during the course of the project.


We wish their team good luck in ongoing efforts and look forward towards their association for future projects.

The issuance of this completion certificate does not relieve the Contractor from any obligation, responsibility or liability derived by the mentioned purchase order.

With Regards,

Yours faithfully,

For M/s. Tecnicas Reunidas Engineers India Private Limited,

  
Authorized Signatory  
Prabhulla Dongat  
(Commercial VP)  
30/Aug/19

-1-



Thanks for *your* attention!

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