Competent Collaborative Consultance Sirm We shoulder

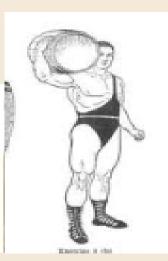
We shoulder Engineering responsibilities and deliver to clients with ease





#### TRUTH

Engineers are diverse and come to the profession with a passion to solve realworld problems.



### Organization Profile

- Engineers Right Angle specializes in the field of 'Mechanical Engineering Services' and 'Multi Discipline Engineering Design', provides engineering solutions for Plants across industrial sectors, manufacturing industries, contractors and construction firms.
- Managed & Lead professionally by Experienced Technologist, with 26 years of experience in Petrochemicals, Chemicals and Oil & Gas, Energy and EPC industry across globe.
- Promoted by Young and Ambitious Entrepreneur with passion with engineering excellence

#### Our Vision

 To become Globally recognized and India's leading Engineering services Company delivering cost effective, innovative engineering solutions with inherent safety in design and with high integrity

## Mechanical Engineering Services

- Conceptual Engineering-Equipment sizing, cost estimation for project initiation
- Fabrication of Equipment
- FEED Deliverables-Data sheets, weight and cost estimate, civil load data, appurtenances
- Detail design with calculations, GA drawings, internal details and manufacturing detail drawings (PV ELITE, ACAD)
- Technical and commercial bid evaluation with unbiased review results
- Vendor document management
- Expediting service for Fabrication Equipment
- Operating, Installation and instruction manual, "As built" drawing
- MDR compilation
- Documents for statutory approvals like CCOE, IBR, agency
- Spares list
- Painting and insulation schedule
- Man power services for installation and supervision, pre-commissioning, trouble shooting

## **Equipment Engineering Services**

- Vessels, Reactors , Tanks, Columns, Silos, Heat exchangers, Air cooled exchangers, Mechanical Design and specifications
- Cost estimation
- Equipment Fabrication and it's Detail drawings (ACAD)
- Pump, Compressor, Blower Design & Specification
- Package Unit Specification
- Skid layout, 3D model, pipe spool detail drawings, bill of material
- Procurement Services
  - Vendor Offer Evaluation & Recommendation
  - Vendor Interaction
  - Vendor Documents Review

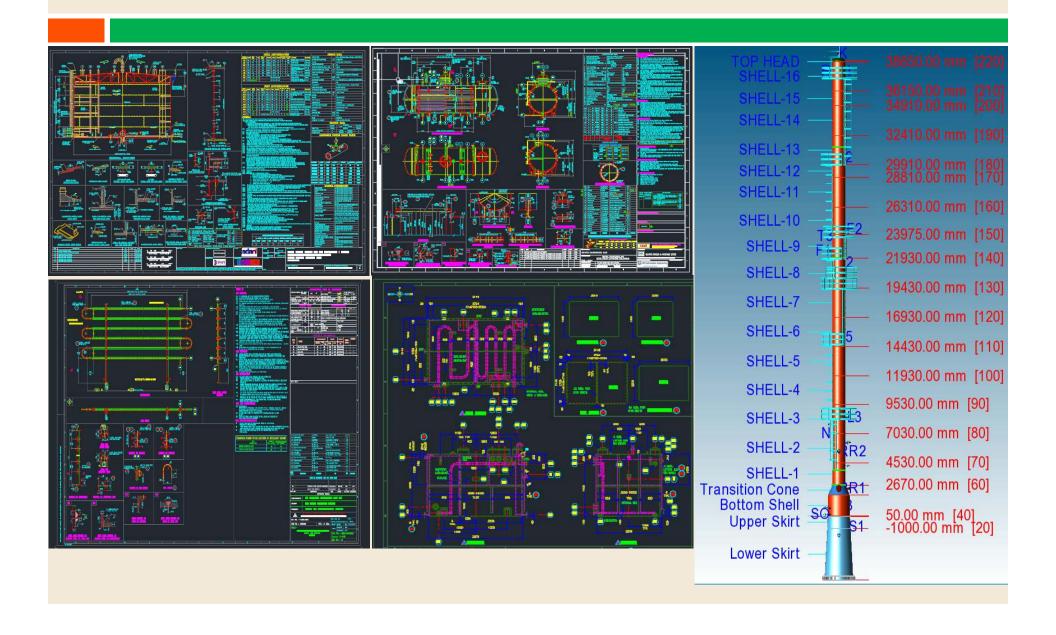
## NOTABLE WORK DONE

SR. NO.	PROJECT NO.	TYPE OF EQUIPMENT	DIAMETER	HEIGHT /LENGTH	THK.	NO. OF TUBES	PRESSURE	TEMP.	MAX ATTRIBUTE	MOC	CLIENT
				ĺ							
1	1908002	TANK	18000	11500	10		0.01	65	DIA, HEIGHT AND THK	CS	ADANI APSEZ LTD.
2	1809001	TANK	1300	1600	6		0.05	300	PRESSURE, TEMP.	CS	NOCIL LIMITED
3	1904006	VESSEL	5000	3600	10		0.51	240	DIA	CS	TATA STEEL LTD.
4	1901002	VESSEL	1400	10200	20		31.6	345	HEIGHT	CS	HPCL MITTAL ENERGY LTD.
5	1809002	VESSEL	2200	3300	50		48	200	THK, PRESSURE	CS	NOCIL LIMITED
6	1901002	VESSEL	2000	3970	14		9	405	TEMP	CS	HPCL MITTAL ENERGY LTD.
7	1811005	HEAT EXCHANGER	2386	10212	24	2145	18.2/17.2	100	DIA, HEIGHT, NO. OF TUBES	CS	HPCL MITTAL ENERGY LTD.
8	1805002	HEAT EXCHANGER	1100	8203	44	582	21.5	255	тнк	CS	HPCL
9	1805026	HEAT EXCHANGER	508	4084	8	178	4.3/6	285/70	TEMP	SS 304	FORMOSA PLASTICS CORPORATION,U.S.A.
10	1812002	HEAT EXCHANGER	650	7696	12	455	42/7	180/80	PRESSURE	CS	IFFCO
11	2002002	COLUMNS	2500	31950	26		2	100	LENGTH	CS	GACL
12	2002002	COLUMNS	2500	31950	26		2	100	LENGTH	cs	GACL

### **Process Engineering Services**

- Process Simulation
- Thermal Design of Heat Exchanger, Air Fin Coolers, Economizer.
- Distillation Column Sizing
- Vessel Sizing (Two Phase, Three Phase Separator)
- Scrubber Sizing
- Hydraulic Calculations and Line Sizing
- Safety Valve Sizing
- □ Flare System Analysis
- Vendor Document Review and Purchase Assistance
- Cost Estimation and Project Feasibility Analysis.

## Some sample Snap done by Static Department



## Process design Engineering documents delivered

- Basic Flow Diagram Concept Design Stage
- Design Basis and Design Concept Note.
- Process Flow Diagram and Heat and Mass Balance
- Process Simulation Report (If Applicable)
- Process Description
- P&Id Diagram
- Cause & Effect Diagrams,
- Control Philosophies,
- Shutdown Philosophies
- Process Equipment Datasheet
- Process Instrument Datasheet
- Line List
- Technical Bid Evaluation for Vendor Package

## Piping Engineering Services

#### Layout

- Conceputalizing and development of Plot plan.
- Development of Equipment layout.
- Vendor Document review fir 3d Modelling.
- Preparation of Piping Material Specification
- Pipe wall thickness Calculation as per ASME B31.3

#### 3D Model Development

Inputs like Equipment GA, floor elevation, P&ID,Instrument Hook-up used.

#### Deliverable

- 1st cut BOM from P&ID for Cost Estimation.
- 3D model review at different stages of project completion.
- Preparation of Isometric Drawing and Piping GAD.
- Final Piping BOQ prepartion as per P&ID line list.

## Piping Engineering Services

#### Stress Analysis

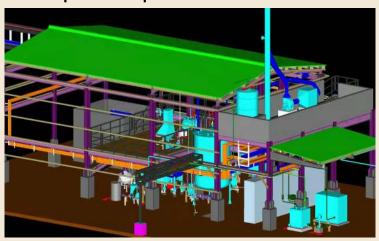
- Piping having High temperature and Pressure are taken under as critical line.
- Analysis on Critical line are done on CEASAR II software.
- Support design.

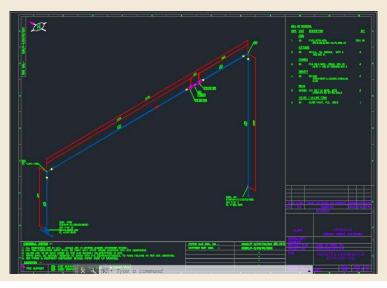
#### As Builts

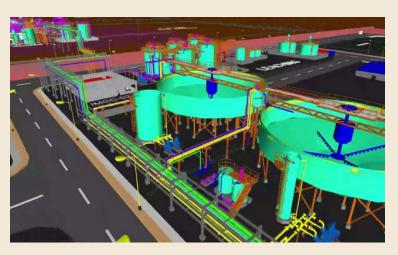
- As-Built preparation at site for Existing or new pipline arrangements.
- Isometric with BOQ.
- GAD of Piping.

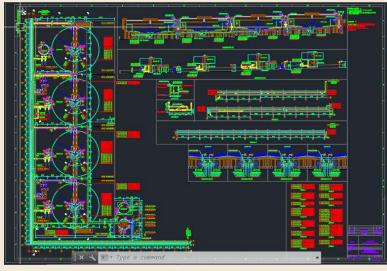
## Piping Engineering Services

#### Project Snap









#### **Our Clients**













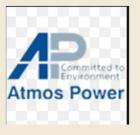
















#### **Order From**

#### ANHALTEN FAB ENGINEERS PVT LTD









#### **Engineering Contractors**











#### **End Clients**











#### Capabilities:

- 1 Lead Engineer Static
- 2 Design Engineers
- 1 Piping Engineer
- 1 Lead Designer
- 4 Draftsmen

Office Space:

1500+ Sq Feet

Location & Contact Details: Engineers Right Angle.

Address: 14-B, ST Society, OPP Gotri Medical College, Gotri Road Vadodara-390021

• E-mail: <u>info@er-angle.com</u>, <u>company@er-angle.com</u>

• Web: <u>www.er-angle.com</u>

Skype: sunny\_gupta9898

Webex : Will be announced later

Contact India: +91 9033215834