



## **The Culminates Engineering Services**

319, Aust-Mangal Complex, Near Rajasthan Hospital,  
Shahibaug, Ahmedabad – 380004, Gujarat, India.

### **For Engineering / Design of:**

- *Pressure Vessels*
- *Heat Exchangers (Shell & Tube and Air Cooled)*
- *Tanks*
- *Cryogenics*
- *Finite Element Analysis*
- *Piping*
- *Structural*

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## About Us

- **The Culminates Engineering Services (CES)** is provider of engineering services equipped with powerful tools of mechanical design that helps the clients to realize maximum return from their equipment and of-course from their valuable trust. We are able to provide a wide range of engineering services in a very deep area of process equipments, oil and gas sectors and refinery industries.
- **Independent Engineering Consultant:** *CES* can provide an objective viewpoint as independent engineering consultant. We will design, review, analyze, evaluate, report and advise the client about their equipments and/or complete design project – at any stage of its progress.
- **Your Most Valuable Resource In Total Cost Management:** Our experience and technical strength, together with our commitment to service, makes us client’s most valuable resource in total cost management.
- *CES* provides design supports for clients seeking to manufacture equipment that meets ASME Code requirement and/or requirements of some other Codes and standards i.e. PD-5500, EN-13445, TEMA, IS, WRCB-107 & WRCB-297, API-650, API-618, API-661 etc. or as desired by purchaser. When necessary and required; finite element analysis, Zick’s analysis, local load analysis, rigging analysis etc. are also performed to determine if design concepts meet code & client’s requirements.

## Client Industries

- The client industries best served by *CES* are either those that order process equipments i.e. “End Users” or who does “Engineering consultancy” or “Manufacturers” of new pressure vessels and heat exchangers (including repairing of old vessels for restoration into service) that require approval and compliance to ASME Code, PD-5500, EN-13445, API, TEMA, IS, WRCB-107 & WRCB-297 and some other Codes and standards as desired by purchaser.
- Our Client Industries include following areas :
  - Vessels Fabrication Shops
  - Process Plants, Power Generation Facilities
  - Chemical, Petrochemical and Refinery Industries
  - Oil and Gas Sectors, Offshore, Water Treatment Plant
  - Pulp, Paper, Food and Textile Industries
  - Engineering Consultants etc.

## Engineering Services

- As a single source provider of engineering services for ASME, PD-5500, EN-13445, TEMA, IS, WRCB-107 & WRCB-297, API-650, API-618, API-661 and some other Codes and standards as desired by purchaser, **CES** eliminates redundancies and save out clients both time and money. Our engineering services include **design and/or design review** of followings :
  - Pressure Vessels (PV) - Including U-Stamped Pressure Vessels
  - Heat Exchangers (HE) - Shell & Tube type, Also U-Stamped Exchangers
  - Air Cooled Heat Exchangers
  - Tanks per API-650 Code
  - Cryogenics equipments
  - Structural (Skid, various vessels / exchangers supports i.e. skirt, legs, lugs, pipe and saddle supports, lifting lugs etc.)
  - Wind / Seismic load analysis on vessel/tall tower/exchanger & their supports
  - Local Load Analysis on vessels due to Nozzle loadings
  - Various other design & analysis features covered in **PV Elite** latest version.
  - Finite Element Analysis using **Nozzle Pro, FE Tee i.e. FE Pipe Modules**
- We are also providing services for **drawing preparations and/or drawing review** of pressure vessels and heat exchangers.
- Thermal Design of Heat Exchangers
- **PVHE Design Training including Online Training**
- **Piping Stress Analysis**
- **Design and Analysis Software:**
  - **PV Elite**
  - **Nozzle Pro, FE Tee i.e. FE Pipe Module**
- Various **Codes & Standards** for design:
  - ASME Boiler and Pressure Vessel Code, Section VIII, Div.-1
  - ASME Boiler and Pressure Vessel Code, Section VIII, Div.-2 (Design features as covered in **PV Elite** latest version)
  - PD-5500 (British Code)
  - EN-13445
  - TEMA
  - API-650, API-618 & API-661
  - IS-2825
  - Wind & Seismic Codes as covered in **PV Elite** latest version
  - WRCB-107 & WRCB-297, WRCB-368

- Various **Hand Books** for design references:
  - Process Equipment Design By Lloyd E. Brownell & Edwin H. Young
  - Pressure Vessel Design Manual By Dennis R. Moss
  - Pressure Vessel Design Hand Book By Henry H. Bednar, P.E.
  - Pressure Vessel Hand Book By Eugene F. Megyesy

## Why “CES” & What are the Benefits with “CES” ?

- **CES** provides engineering services to improve client’s performance by optimizing equipment’s design after fulfilling all mandatory and recommended code rules and regulations.
- **CES** responds quickly to its client’s needs and help clients meet the Code requirements with minimal impact of operations.
- **CES** ensures that the services delivered meet the client’s needs and requirements.
- The client-oriented approach facilitates meeting client expectations for any aspect of design project, including design project size, schedule, scope, reporting and billing.
- **CES** can be as “Big” or as “Small” as the client requires. Services can range from a few hours of engineering services on an infrequent basis to assuming total responsibility for a client’s complete design project including preparation of fabrication drawings.
- **CES** is also equipped with latest version of **PV Elite, Nozzle PRO, FE Tee (FE Pipe Modules) etc.** software which are design and analysis software for pressure vessels & heat exchangers and also popular around the world. **CES** is also working on the same as per client’s requirement.

*“Our experience and technical strength, together with our commitment to service, makes us client’s most valuable resource in total cost management.”*

## Contact

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*“Our success is our great commitment to service”*