

# Neocent Engineering Expands Finite Element Analysis Services for Advanced Industrial Engineering Applications

Delivering simulation-driven engineering solutions that improve structural integrity, optimize performance, and reduce operational risks across critical industrial systems.



**Ahmedabad, Gujarat Jun 6, 2026** ([Issuewire.com](https://www.issuewire.com)) - Neocent Engineering Pvt. Ltd., a rapidly growing engineering consultancy headquartered in Ahmedabad, India, has strengthened its [Finite Element Analysis \(FEA\) Services](#) to support industries requiring advanced engineering validation and high-performance design optimization.

The expanded FEA capabilities reinforce Neocent Engineering's commitment to delivering precise, code-compliant, and simulation-driven engineering solutions for clients across Oil & Gas, Power Generation, Petrochemical, Manufacturing, Water Treatment, and Heavy Engineering sectors.

Founded in 2019, Neocent Engineering specializes in mechanical and process engineering services, including pressure vessels, heat exchangers, piping systems, skid packages, structural engineering, and advanced simulation services. By integrating modern FEA tools with global engineering standards, the company helps industrial clients improve safety, reliability, and operational efficiency.

### **Advanced FEA Solutions for Complex Engineering Challenges**

Finite Element Analysis has become an essential engineering tool for evaluating the structural behavior of industrial equipment and systems under real operating conditions. Neocent Engineering utilizes advanced FEA methodologies to analyze complex loading scenarios, thermal stresses, fatigue conditions, and structural deformations before fabrication or installation begins.

The company's FEA services include:

- Structural stress and deformation analysis
- Thermal stress and fatigue evaluation
- Pressure vessel and nozzle analysis
- Seismic and wind load assessment
- Skid frame and structural support analysis
- Buckling and stability evaluation
- Transportation and lifting analysis
- Vibration and dynamic response studies
- Equipment life-cycle and durability assessment

These analyses help clients identify potential failure points early in the design phase, reducing costly redesigns, improving safety margins, and enhancing long-term equipment reliability.

### **Simulation-Driven Engineering for Better Performance**

Neocent Engineering leverages advanced engineering software and digital simulation tools to validate industrial equipment performance under various operating conditions.

Through simulation-driven design approaches, engineers can evaluate:

- Stress concentration areas
- Material performance under extreme loads
- Thermal expansion and contraction behavior
- Fatigue life under cyclic loading
- Structural response to dynamic forces
- Deformation and displacement behavior

This proactive engineering methodology allows clients to optimize material usage, improve operational efficiency, and accelerate project approvals while maintaining compliance with international standards.

### **Compliance with International Engineering Standards**

Neocent Engineering follows globally recognized engineering codes and industry standards to ensure safe and compliant design validation.

The company's FEA services support projects designed according to:

- **ASME Section VIII Div. 1 & 2**
- **API Standards**
- **ASME B31.1 & B31.3**
- **AISC and ASCE guidelines**
- **EN and IS standards**

This standards-based approach ensures that every analysis aligns with industry regulations, client specifications, and real-world operational requirements.

### **Supporting High-Risk Industrial Applications**

Neocent Engineering's Finite Element Analysis services are widely used in industries where operational safety and structural reliability are critical.

Key sectors served include:

- Oil & Gas
- Petrochemical & Refinery
- Power & Energy
- Chemical Processing
- Manufacturing
- Water & Wastewater Treatment

The company collaborates with EPC contractors, OEMs, and industrial operators to provide engineering insights that support safer designs, efficient fabrication, and smoother project execution.

Clients recognize Neocent Engineering for its technical precision, timely project delivery, and ability to solve complex engineering challenges through advanced simulation techniques.

### **About Neocent Engineering Pvt. Ltd.**

[Neocent Engineering Pvt. Ltd.](#), headquartered in Ahmedabad, India, is a multidisciplinary engineering consultancy specializing in mechanical, process, piping, and structural engineering services. Since 2019, the company has delivered code-compliant solutions for pressure vessels, heat exchangers, piping systems, skid packages, and industrial infrastructure for clients worldwide. With expertise in ASME, API, TEMA, and other global standards, Neocent Engineering provides optimized and performance-driven engineering solutions.

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