

# JACKSON M. JENKINS, P.E.

Founder & Principal Engineer, Nexus Professional Engineering, LLC  
Tallahassee, FL | (850) 404-9544 | NexusProEng.com

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## PROFESSIONAL SUMMARY

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Jackson M. Jenkins, PE, is a licensed Professional Engineer and mechanical engineer with more than 20 years of engineering, manufacturing, product development, and executive technical leadership experience. His background spans high-volume manufacturing, precision machining, automotive assembly, oil and gas operations, specialty equipment (including regulated residential elevator products), and product safety and regulatory compliance.

Mr. Jenkins provides independent engineering analysis, product and design evaluation, failure investigation, finite element analysis (FEA), and litigation support through Nexus Professional Engineering, LLC. His experience encompasses the full product lifecycle — concept development, mechanical design, materials and manufacturing-process selection, design for manufacturability, testing and validation, production implementation, quality, field performance, failure investigation, and corrective engineering — together with executive-level responsibility for engineering, manufacturing operations, quality, safety, and regulatory compliance.

## AREAS OF TECHNICAL EXPERTISE

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- Mechanical Engineering
- Failure Analysis & Root-Cause Investigation
- Machinery & Industrial Equipment
- Product Design & Product Development
- Product Safety & Product Liability
- Manufacturing & Manufacturing Processes
- Finite Element Analysis (FEA)
- Structural & Mechanical Analysis
- Stress & Comparative Fatigue Analysis
- Design Validation & Product Testing
- Design for Manufacturability (DFM)
- Materials & Component Evaluation
- Precision Machining
- Fasteners, Weldments & Fabricated Assemblies
- Field Failure Evaluation
- Safety Engineering & EH&S Compliance
- Regulatory & CPSC-Related Compliance
- Independent Engineering Review

## PROFESSIONAL EXPERIENCE

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### **Founder & Principal Engineer** — Nexus Professional Engineering, LLC — Tallahassee, FL

*2026 – Present*

Independent engineering consultancy providing FEA-based failure analysis, product and design evaluation, litigation support, and licensed Professional Engineering services.

- Independent finite element analysis of structural systems for specialty vehicle applications, evaluating design modifications, stress response, displacement, and comparative fatigue performance.
- Failure analysis and root-cause evaluation of mechanical systems, manufactured products, equipment, and components.
- Professional Engineering review, certification, inspection documentation, and technical letters for regulated equipment and mechanical systems.

### **Vice President, Engineering & Manufacturing** — Residential Elevators, LLC — Tallahassee, FL

*2021 – December 2026*

- Led nationwide operations across manufacturing, engineering, and field services, focused on operational excellence and efficiency across all divisions.

- Directed procurement, negotiations, testing, and selection for products, ensuring cost-effectiveness and product quality.
- Managed multidisciplinary engineering, manufacturing, and field-services teams, driving innovation in product development, safety protocols, and regulatory compliance.
- Implemented lean manufacturing practices, reducing production waste and increasing throughput.
- Led cross-functional collaboration with R&D to reduce elevator system installation times.
- Oversaw large-scale capital investment in manufacturing equipment and plant upgrades, increasing operational capacity.
- Directed a nationwide field-service training and certification program, reducing warranty claims.
- Managed combined operational budgets across manufacturing and field service/customer operations.

**Director of Manufacturing — Residential Elevators, LLC — Tallahassee, FL**

*2018 – 2020*

- Oversaw facility-related operations, including compliance with safety regulations, quality assurance, and system-wide process improvements.
- Directed cross-functional projects to streamline operations, optimize facility resources, and ensure cost-effective service delivery.

**National Director of Quality & Safety — Residential Elevators, LLC — Tallahassee, FL**

*2017 – 2018*

- Developed and managed company-wide safety and quality procedures, fostering continuous improvement across all facilities.
- Collaborated directly with U.S. Consumer Product Safety Commission (CPSC) technical staff and legal counsel on product-safety matters, including engineering evaluations, corrective product solutions, processes and procedures, and regulatory communications.
- Led selection and testing processes for critical facility equipment, ensuring materials and products met safety, quality, and performance standards.

**Operations Manager — JaCi Oil Company — Oblong, IL**

*2010 – 2017*

- Directed field operations, including direct employees and contractors, across daily production activities.
- Implemented strategic facility-management initiatives, improving production efficiency through resource reallocation and prioritization of high-value production areas.
- Led electrical troubleshooting, repair, and system-optimization work, and managed facility maintenance, pump repair, and equipment lifecycle.

**Design Engineer — Accelerated Machine Design and Engineering LLC — Rockford, IL**

*2009 – 2010*

- Managed facility design and engineering projects using 3D modeling and stress analysis for equipment and machinery optimization.
- Led product development and reverse-engineering projects to enhance equipment for facility construction and relocation of high-value components.

**Assembly Planner / Supervisor — Chrysler Motors Corporation Assembly Plant — Belvidere, IL**

*2005 – 2008*

- Supervised and coordinated a team of 285 production employees and 6 supervisors across facility operations, production schedules, and performance metrics.
- Implemented quality-improvement initiatives achieving the lowest defect rates per shift and enhanced throughput across multiple production lines.

**Manufacturing Engineer / Production Supervisor — Pacific Bearing Company — Rockford, IL**

*2004 – 2005*

- Directed new product development and manufacturing implementation for two product lines.
- Managed process improvements across production lines, reducing labor costs.

**Intern & Asphalt Testing Technician — KOCH Industries — Terre Haute, IN**

*2002 – 2004*

- Supervised aggregate testing procedures, applying Six Sigma DMAIC methodology to improve process efficiency.
- Developed testing devices for evaluating material integrity.

## CONSUMER PRODUCT SAFETY & REGULATORY EXPERIENCE

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Throughout his tenure in senior engineering and manufacturing leadership roles, Mr. Jenkins collaborated directly with U.S. Consumer Product Safety Commission (CPSC) technical staff and legal counsel on product-safety matters, including engineering evaluations, corrective product solutions, processes and procedures, and regulatory communications. His regulatory experience includes:

- Conducting engineering evaluations involving product-safety matters.
- Developing processes, procedures, and product solutions reviewed and approved by CPSC technical staff.
- Working with legal counsel on CPSC-related technical matters, including preparation of technical communications for submission to the Commission.

## SELECTED ENGINEERING EXPERIENCE

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### Specialty Vehicle Structural Analysis

Performed independent finite element analysis of structural systems used in specialty vehicle manufacturing, evaluating baseline and modified configurations to assess the effects of design changes on stress response, displacement, and comparative fatigue performance.

### Mechanical Failure Analysis & Root-Cause Evaluation

Experience evaluating mechanical and manufactured-product failures using engineering inspection, technical documentation, engineering calculations, design review, manufacturing-process review, FEA, testing, and root-cause analysis. Areas of experience include mechanical components, machinery and equipment, fabricated assemblies, fasteners, and structural/mechanical systems.

### Manufacturing & Industrial Engineering

More than 20 years of experience across manufacturing environments and engineered products, including high-volume manufacturing, precision machining, automotive assembly, oil and gas operations, specialty/regulated equipment, fabrication and assembly, Lean/Six Sigma process improvement, and supplier qualification and development.

## PROFESSIONAL ENGINEERING LICENSURE

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Jackson M. Jenkins is currently licensed as a Professional Engineer in 10 jurisdictions:

| Jurisdiction         | PE License   |
|----------------------|--------------|
| Florida              | 100047       |
| Georgia              | PE056059     |
| Texas                | 161116       |
| Virginia             | 0402071889   |
| South Carolina       | 45411        |
| District of Columbia | PE40003273   |
| New York             | 113203       |
| New Jersey           | 24GE06371900 |
| Connecticut          | 39585        |
| Massachusetts        | 61275        |

## EDUCATION

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### Bachelor of Science, Mechanical Engineering

Rose-Hulman Institute of Technology, Terre Haute, IN — May 2004

## CERTIFICATIONS & PROFESSIONAL AFFILIATIONS

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- Professional Member, American Society of Mechanical Engineers (ASME)
- OSHA 30-Hour Certification

## TECHNICAL CAPABILITIES

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Engineering & Analysis: Mechanical design, finite element analysis, stress analysis, comparative fatigue analysis, design validation, failure analysis, root-cause investigation, product testing, design review

Manufacturing & Operations: Precision machining, fabrication, assembly, Lean manufacturing, Six Sigma DMAIC, quality systems, supplier development, capital project management

Engineering Tools & Methods: SolidWorks, FEA, GD&T, engineering calculations, technical documentation, inspection and testing

## LITIGATION & TECHNICAL CONSULTING SERVICES

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Available to provide independent technical services involving:

- Mechanical and product failure analysis
- Machinery and equipment investigations
- Product liability matters
- Design and manufacturing defect evaluation
- Product-safety matters
- Engineering design review
- Finite element analysis
- Manufacturing-process evaluation
- Technical document review
- Litigation consulting and expert-witness services

*Services are provided subject to conflict review and evaluation of the specific technical issues involved.*