Uni-Systems Engineering, PC

6105 Trenton Lane North Minneapolis, MN 55442



(763) 536-1407 uni-engineer.com

Senior Manufacturing Engineer

**Must be a U.S. citizen or a U.S. permanent resident (current Green Card holder).

About Uni-Systems Engineering

Uni-Systems Engineering is a premier provider of custom mechanization for iconic structures and attractions that create unforgettable experiences. We partner with engineers, architects, and construction managers to mitigate risk and deliver functionally integrated, reliable structures. Our team of mechanical, structural, and electrical engineers deliver custom, project-specific solutions to complex and unprecedented engineering challenges. With expertise spanning industries such as Aerospace, Amusement and Entertainment, Stadiums and Ballparks, Telescope Observatories, and Custom Cranes, we bring engineering excellence to every project.

Visit our website (<u>www.uni-engineer.com</u>) to learn more.

Job Summary

As a Senior Manufacturing Engineer, you will lead quality activities that ensure custom manufactured and fabricated assemblies meet design intent, functional requirements, and customer specifications. You will be a technical leader for GD&T and measurement practices, support the Quality Management System (QMS), manage PDM/drafting process improvements, and play an active role in shop/fabrication inspections, prototype testing, and supplier quality.

- Lead GD&T application for design and production drawings; provide GD&T coaching and review for projects and shop drawings.
- Conduct QA inspections at vendor/fabrication shops, pre-shipment inspections at our warehouse, and inspection planning for installations.
- Develop, maintain, and improve quality procedures and process controls that integrate with our QMS (including inspection plans, acceptance criteria, and non-conformance handling).
- Implement and analyze Statistical Process Control (SPC) and measurement system analyses (MSA); lead root-cause investigations and corrective actions (CAPA).
- Design and execute test & validation plans for prototypes and assemblies, coordinate test set-up, data collection, and test reporting.
- Support supplier quality management: supplier selection input, supplier audits/inspections, incoming inspection criteria, and supplier corrective actions.

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- Perform FMEA, risk assessments, and reliability input for designs; work with engineering teams to mitigate design/manufacturing risks.
- Manage PDM/drafting QA processes: ensure controlled drawing revisions, release processes, and proper revision control in the PLM/PDM system.
- Participate in design reviews, coordinate with contractors, architects, and other project stakeholders to ensure constructability and testability for field installation and commissioning.
- Drive continuous improvement initiatives (lean/5S, process optimization, value engineering) aimed at quality, cost, schedule, and maintainability.

Job Requirements

Minimal Requirements

- B.S. from an ABET-accredited institution in Mechanical Engineering, Manufacturing Engineering, or closely related engineering degree.
- 5+ years of relevant quality assurance / quality engineering experience in manufacturing / fabrication environments.
- Proven GD&T and drawing-interpretation skills for complex assemblies.
- Inspection and measurement experience (MSA, acceptance sampling; basic SPC).
- Experience with PDM/PLM systems, drawing control, and revision management.
- Able to read mechanical, structural, and electrical drawings; familiar with fabrication and machining processes.
- Data-driven problem-solving root-cause analysis and corrective-action experience.
- Operate independently on moderately complex work and coordinate with project teams.
- Clear technical writing and verbal communication.
- Able and willing to travel domestically (~5% typical), including occasional overnight site visits for vendor audits, inspections, and commissioning.

Preferred Requirements

- M.S. in Quality Engineering, Manufacturing Engineering, or related field.
- P.E. (Professional Engineer) license preferred.
- ASQ CQE or CSQE, or Six Sigma Green/Black Belt.
- Experience with FMEA, DOE, SPC software and statistical tools (Minitab, JMP).
- Supplier-quality experience (audits, incoming inspection, supplier corrective actions).
- Hands-on shop/fabrication experience and familiarity with inspection fixtures.
- Demonstrated impact on quality metrics (e.g., improved first-pass yield, fewer NCRs/rework).
- Experience mentoring junior staff and serving as a technical resource for GD&T/measurement.

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• Track record leading continuous-improvement or corrective-action projects.

Benefits of Employment

- Competitive salary and growth opportunities.
- Comprehensive benefits package includes medical, dental, vision, life, and disability insurance.
- 401(k) plan with above-market company matching.
- Generous Paid Time Off (PTO) and Paid Company Holidays.
- HSA and FSA options.
- A collaborative culture built on integrity, respect, innovation, value, and enterprise.

If you are passionate about solving complex engineering challenges and shaping innovative solutions, we encourage you to apply for this exciting opportunity at Uni-Systems Engineering!