Mechanical Engineer

Louisa, Virginia | Full-time
Reports to: Mechanical Engineering Manager
On-site preferred; hybrid flexibility considered

Duravex: Who We Are

Duravex is a growing manufacturer based in Louisa, Virginia, designing and building custom machinery, turnkey mechanical systems, exhaust products, and data infrastructure equipment. Our capabilities include sheet metal fabrication, welding, machining, coatings, mechanical assembly, and UL 508A industrial control panels.

Our engineers work directly with customers, suppliers, and the people who build our products. That connection gives you the opportunity to see your designs take shape, learn from the build, and improve the finished equipment.

What You'll Do

We are looking for an experienced Mechanical Engineer with a solid background in mechanical and machinery design who is ready to own projects, not simply complete assigned drawings. Working with our Mechanical Engineering Manager, you will develop equipment and mechanical systems supporting custom machinery, our exhaust product line, and data infrastructure.

This role is suited to a mid-career engineer who can independently develop a design, work through the calculations and details, and stay involved as it moves into manufacturing. You will have room to deepen your technical expertise, take on more complex projects, and grow with the team.

Key Responsibilities

- **Develop complete mechanical designs.** Translate customer requirements into equipment concepts, layouts, mechanisms, fabricated structures, and assemblies. Take ownership from initial design through release and build support.
- **Apply engineering fundamentals.** Evaluate loads, forces, motion, speeds, torque, materials, fits, and tolerances. Select appropriate motors, drives, bearings, actuators, and other components as the project requires.
- **Create production-ready documentation.** Develop 3D models, assemblies, detailed drawings, bills of material, and specifications using Autodesk Inventor and AutoCAD. Maintain revision and release control in Autodesk Vault.
- **Design for the full equipment lifecycle.** Consider fabrication, assembly, safe operation, reliability, maintenance access, and cost rather than treating the drawing as the finished deliverable.
- **Work across disciplines.** Coordinate mechanical designs with electrical and controls requirements. Collaborate with manufacturing, quality, purchasing, and suppliers to resolve interfaces and practical build issues.
- **Support builds, testing, and troubleshooting.** Participate in design reviews, support prototypes and first builds, evaluate performance, and resolve design or field issues. Feed improvements back into controlled documentation.
- **Support customers and quoting.** Clarify technical requirements, communicate design options, and provide concepts, component information, and engineering inputs to support proposals and project planning.
- **Improve how we engineer.** Develop reusable designs and practical standards, maintain documentation consistent with AS9100 requirements, and communicate progress, risks, and changes early.

What You Bring

- A bachelor's degree in Mechanical Engineering or a related engineering discipline and approximately 5 or more years of relevant mechanical design experience.
- A solid background designing machinery, industrial equipment, or mechanical systems, with examples of projects you have taken from requirements through detailed design and build support.
- Strong mechanical fundamentals, practical problem-solving ability, and confidence making and explaining engineering decisions. You can work independently while recognizing when a design needs review.
- Strong 3D CAD skills. Autodesk Inventor experience is preferred; AutoCAD and Autodesk Vault experience are valuable. Engineers with strong experience in comparable systems and the ability to learn our Autodesk environment are welcome.
- Working knowledge of sheet metal, weldments, machining, mechanical assembly, drawing standards, tolerances, and component selection.
- Clear communication, attention to detail, and ownership of schedules and deliverables. You are comfortable working with customers and shop-floor teams, not only at a CAD workstation.

Experience with material handling equipment, pneumatic or hydraulic mechanisms, exhaust systems, or electromechanical equipment is valuable. You do not need prior experience in every product area we support.

Why Duravex?

At Duravex, you can work on a complete machine or system and see the result of your decisions. You will have direct access to manufacturing, meaningful project ownership, and a varied mix of engineering challenges. Good ideas can become real improvements in the equipment we build.

We offer competitive compensation and benefits, collaboration with experienced engineers and manufacturing professionals, and opportunities to grow into larger projects, deeper technical responsibility, or future leadership roles.

Work Arrangement

Our preference is an on-site role in Louisa, but we are open to a hybrid arrangement for a strong candidate. Focused design work can be balanced with regular in-person collaboration, design reviews, and hands-on support for equipment builds and testing.

Apply

Apply through Indeed or send your resume to careers@duravex.com.