Tool Design Engineer (Weld Focus) – Engineering

Location: Walker Manufacturing – Fort Collins, CO

Position Overview:

The Tooling Design Engineer at Walker Manufacturing ais responsible for designing fixtures, tooling, and related manufacturing aids that support safe, repeatable, and efficient production. This role is focused primarily on manual and robotic welding applications and serves as the engineering lead for tooling concept development, CAD design, design documentation, and tooling validation. This position works closely with engineering, manufacturing, welding, robotic programming, and production teams to ensure tooling designs account for weld requirements, operator usability, manufacturability, and long-term performance.

Key Responsibilities:

- Sets a positive example through strong work ethic, attention to detail, and commitment to quality
- Design fixtures, jigs, and tooling to support manufacturing, with primary emphasis on manual and robotic welding operations
- Create, revise, and release CAD models, drawings, and design documentation that clearly communicate design intent
- Apply knowledge of weld robotic programming requirements, welding metallurgy, weld sequencing, heat input, and distortion control to tooling design
- Incorporate part fit-up, clamping strategy, operator access, weld quality requirements, and robotic presentation into tooling designs
- Partner with manufacturing, welding, robotic programming, and production teams to evaluate tooling needs and improvement opportunities
- Support new product launches through tooling design, prototype review, validation, and production readiness activities
- Collaborate closely with the Tooling Fabricator to ensure designs are practical to build and effectively implemented
- Troubleshoot tooling performance issues and develop design improvements that enhance repeatability and durability
- Support robotic weld cell integration and initial process optimization related to tooling design
- Participate in part and process validation activities including first article builds and qualifications of new designs
- Identify wear points and design improvements that support long-term tooling reliability

- Maintain accurate engineering records for tooling revisions and released configurations
- Support continuous improvement efforts focused on safety, quality, uptime, and efficiency

Qualifications:

- Experience in tooling design for manufacturing, preferably in welding or metal fabrication environments
- Proficiency in SolidWorks or similar CAD software
- Strong understanding of weld fixture design principles and best practices, locating methods, and clamping strategies
- Understanding of robotic welding requirements and welding metallurgy
- Working knowledge of robotic welding programming concepts
- Ability to read and interpret engineering drawings, GD&T, and weld symbols
- Strong problem-solving and cross-functional collaboration skills
- Working knowledge of fabrication, machining, and welding processes

Personal Attributes:

- Reliable and accountable with a strong work ethic
- Thoughtful and practical in solving manufacturing problems
- Collaborative and responsive across teams
- Committed to continuous improvement and craftsmanship

Why Work at Walker Manufacturing?

At Walker, we take pride in building premium lawn mowers known worldwide for quality and performance. As part of our team, you will enjoy a supportive work environment, steady year-round employment, and opportunities to grow with a company that values craftsmanship, teamwork, and reliability.