BUILDING VALUE SINCE 1906

Job Title: Manufacturing Engineer
Location: Durant, Oklahoma

SUMMARY:

Develop, improve, and support manufacturing tools, machinery, and processes to achieve greater quality, productivity, and cost savings. Serve as manufacturing engineering representative to other departments and be an active participant in project teams. Develop and maintain knowledge of various topics and applications to recommend and implement new programs and concepts. Design, build and/or contract out and document fixtures and tools and resolve equipment issues. Assist Manufacturing Managers and Supervisors in research, planning, and implementation of Industry 4.0 upgrades.

TYPICAL FUNCTIONS AND RESPONSIBILITIES:

- Uses safe practices and follow lock out/tag out procedure.
- Exhibits basic knowledge of the use of safety equipment and safe working practices.
- Complies with policies and guidelines of the Bobrick's Four Level Defect Grading System.
- Provide general technical support to Manufacturing, Manufacturing Engineering and other departments.
- "Fire-fight" daily issues as needed to keep the production lines up and products moving.
- Assist other departments in their improvement efforts by providing Manufacturing Engineering insight and perspectives.
- May support projects at other branch locations as needed.
- Use data driven frameworks (such as Six Sigma) and LEAN or flow manufacturing methods to improve production processes:
- Use DMAIC, Ishikawa, or other root cause analysis methods to solve problems and recommend corrective and preventative action of internal and external processes.
- Apply statistical process control (SPC) or other statistical methods to monitor process trends.
- Promote and support LEAN Manufacturing and Continuous Improvement, self -balancing cells activities in Manufacturing.
- Research and collect data to support Manufacturing Engineering projects using statistical software (e.g. JMP, QI Macros, and Excel), provide visual analysis and draw conclusions and recommendation for next actions. Detail the work performed and create reports.
- Prepare charts, graphs, and diagrams to illustrate workflow, routing, floor layouts, material handling, and machine utilization (using tools such as MS Visio or Mindjet MindManager).
- Modify and maintain manufacturing documents, spreadsheets and databases.
- Complete time studies to quantify processing times, recommend standards, and identify areas for process improvements.
- Train production personnel as needed on flow manufacturing concepts, self-balancing cells, new equipment and processes, and data collection and usage.

- Perform analysis of manufacturing operations to continuously reduce cost and improve productivity.
- Be responsible for supporting production machinery upkeep and improvement, and assist department with equipment projects:
- Design, develop and facilitate or contract when necessary the build of testers, fixtures and production tools used in manufacturing cells. Develop, assemble, procure or modify existing and new tooling and equipment to ensure efficient production processes.
- Identify and troubleshoot process, material, or equipment problems to minimize down time and recommend solutions to Manufacturing Engineering.
- Revise improvements to manufacturing methods and procedures, including writing change orders, field complaints, and deviations.
- Develop and build and /or contract when necessary of new manufacturing equipment. This may include mechanical assembly, connection of pneumatic devices, installation and wiring of electrical and electronic devices, and functional testing.
- Program, diagnose and troubleshoot PLC applications. Investigate and address PLC related issues.
- Set up, program, and train operators on CNC equipment using CAD/CAM software. Troubleshoot CAD/CAM related programming issues.
- Create, maintain, and update "Visual Manufacturing Procedures" as needed.
- Design jigs, fixtures, and basic in-house automation projects using AutoCAD and/or SolidWorks.
- Reads schematics, assembly drawings, data sheets to perform testing, build and trouble-shoot equipment.
- Support and develop automation and integration projects:
- Assist with the planning of Industry 4.0 projects. Develop and implement new equipment and processes aligned with Industry 4.0 vision.
- Help develop machine vision and robotic applications to automate manual processes.
- Own machine vision and robotic automation equipment including programming, set up, maintenance, troubleshooting and training of production operators if necessary.
- Manage and run projects related manufacturing and manufacturing engineering:
- Use project management techniques to own, plan, drive, execute, and motivate project teams to compete simple and complex projects.
- Prepare "Special Reports" and make presentations to upper management and peer groups. Special Reports may include data analysis and conclusions, payback and financial analysis, capital equipment proposals, and decision justifications.
- Perform research on the state of the art and keep abreast of technical developments in the field.

QUALIFICATIONS:

- Bachelor's Degree in engineering or related technical field
- Minimum five years of experience in a Manufacturing/Production environment working within a technical role.
- Strong project management skills, be able to complete tasks and projects with limited supervision.
- Strong problem solving skills and efficient management of time and resources.

- Understanding of GDT (Geometric Dimensioning and Tolerancing). Knowledge of AutoCAD and SolidWorks. Basic CAD/CAM experience. Basic mechanical design knowledge.
- Using and understanding of general test and measurement equipment, torque wrenches, force gages, caliper etc.
- Strong mathematical skills and knowledge of statistics and Statistical Process Control (SPC).
- Woodworking knowledge and/or Machine Shop knowledge, knowledge and experience in the fabrication of sheet metal products, and molded plastic parts. Knowledge of sheet metal stamping, dies, and tooling.
- Basic knowledge of Electrical/Electronics.
- Understanding and experience with Industrial Robotics, Vison Systems, and/or automation. Strong PLC programming knowledge.
- Experience with Microsoft Office (Word, Excel, PowerPoint, and Outlook).

DESIRED BUT NOT REQUIRED

- 3D Additive Manufacturing experience.
- Advanced PLC programming.
- Computer programming languages (e.g. Python, VBA, C++ and/or C#, SQL)