OVERVIEW:
USA Industries was incorporated in 1982 with its origins dating back to 1959. We have deeply committed values to our Customers and Employees, as we consider them all part of the USA family. At USA Industries we look for self-motivation characterized by a high level of achievement to help us shape the face of USA Industries future; with an authentic commitment to people who share our overall business goals. When you join USA Industries Inc., you will have at your disposal the advice and guidance of a team of seasoned professionals from within the industry, enabling you to learn about the physical plant growth and building projects.

JOB SUMMARY:
This position requires expert technical knowledge and experience in fundamental metallurgical principles related to metal forming (including, but not limited to, welding manufacture, metal joining, and subsequent processing). The individual will plan and execute experimental programs to achieve specific product design characteristics from initial conception, production, and final implementation. This position is responsible for providing technical expertise as a subject matter expert on a variety of projects and programs; s/he will ensure quality system compliance and high quality work and may act as a technical consultant for management.

JOB DUTIES AND RESPONSIBILITIES:
- Participate in generation of intellectual property (IP) ideas. Recognize and document new technology and submit for possible Patent Application. Submit ideas for "unrivaled features" which could significantly improve market share, profitability, etc. Complete documentation and reports for testing and regulatory submissions.
- Define, develop, evaluate and verify designs to meet product requirement and cost targets by conducting Design Reviews and ensure proper objectives are established for the Project by utilizing continuous improvement techniques.
- Specify material characterization methods, facilitate measurement activities, and apply results toward process and product development.
- At the direction of the Sr. Mechanical Design engineer, develop drawings, design parts, specify components, route systems (mechanical/hydraulic) and create assemblies utilizing 3D CAD, appropriate USAI Engineering Standards, and ISO Standards, etc.
- Develop specifications, test methodologies, and test equipment to evaluate design concepts and product with the approval of the Sr. Mechanical design Engineer.
- Communicate effectively; write clear concise memo's including drafts of technical documentation such as Parts and Service diagrams, Operation Manuals, and Shop Manuals. Submit technical documents summarizing Design Studies and Quality Confirmation Check Sheets.
- In conjunction with the department manager, or Sr. mechanical engineer, discuss, negotiate and resolve specification issues with manufacturing and Suppliers during Prototype development and pre-series production. Understand and accommodate manufacturing capabilities and limitations. Resolve all issues with effective countermeasures and follow-up documentation.
- Support Sr. Mechanical Design engineer in maintaining effective Engineering change control by preparing and processing appropriate Engineering Release Letters, release drawings and
supporting technical information into Bills of Material using appropriate software such as AutoCAD, Solid Works, etc.

- Maintain accurate and complete project records; document progress in detailed reports which indicate audit, verification, and validation of processes and designs.
- Support manufacturing and QA departments by resolving problems, determining root cause with effective documentation and countermeasure planning based on engineering disciplines with approval of department manager.
- Interface with multiple functional disciplines for design input, requirements and potential solutions to problems with other USAI Engineering staff and suppliers including exchange of technical information and policies.
- Participate on, or lead corrective action teams, as necessary to resolve product issues by performing root cause analysis and problem resolution related to assigned design responsibilities.
- Provide input to project schedules, timelines and resource requirements for completion of assigned design work.
- Provide work direction to engineers and CADD designers for design, development and verification activities.
- Act as a liaison with external suppliers to insure continuity of product supply by resolving supply and quality issues.
- Ensure understanding of all quality policy/system items that are personally applicable and follow all work/quality procedures.
- Will support Sr. Mechanical Design Engineer as subject matter expert resource on metallurgy with a concentration in alloys and stainless steel.

QUALIFICATIONS:

Skills
- Proficiency in engineering principles including but not limited to structural mechanics, hydraulics, heat transfer, electricity, ergonomics, and data management.
- Proficiency in software applications including 3D CAD (Pro Engineer Wildfire 2.0 or 4.0, AutoCAD, and Solid Works), Microsoft Excel, Word and Power Point, as a minimum.
- Knowledge of engineering standards in drawing practice, dimensioning and metrology tolerances, drawing symbols, welding practice, etc.
- Familiarity with standard engineering concepts, practices, and procedures with CNC machines and other manufacturing shop machinery is essential.

Education
- Bachelor’s Degree in mechanical or related engineering field.

Experience
- 5-7 years previous mechanical design engineering experience in an industrial manufacturing process environment.

Physical Requirements
- Must be able to communicate clearly and effectively; capable of listening intently; visual acuity to process reports. Must be able to sit at a desk for long periods of time.