

Tool Design Engineer

Job Title:	Tool Design Engineer	FLSA Status:	Non-exempt
Department:	Engineering	Reports To:	Tooling and Engineering Manager
Prepared By:	Rich Neubauer	Prepared Date:	1/13/2021
Approved By:		Approved Date:	

Summary

Under the direction of department management, perform engineering assignments relative to the development and design of metal stamping tools, dies, jigs, adapters, gauging devices, machine attachments, and special or single purpose machine tools. Analyze operational requirements, designs, dimensions, materials and treating specifications, etc. Prepare initial drawings, cost estimates, material requisitions, work orders etc. Design progressive and stage dies, jigs, fixtures, gauges etc. Work from sketches, instructions, specifications, and application data. Utilize CAD techniques to perform applicable drafting work. Assist with determining the various design factors e.g. economical production use, tool cost, versatility, locating points, securing methods, tolerances, materials, material treatment etc. Detail sections of large tools to facilitate expediting of work to tool manufacturers or within company Toolroom.

Job Duties and Responsibilities

1. Complete designs for progressive and stage tooling, die modifications, fixtures and jigs using *SolidWorks*.
2. Maintain CAD software and hardware.
3. Maintain materials, records, and resources in a documented system to enable others to use these materials.
4. Maintain proper up-to-date file management for all designs.
5. Create Purchase Orders (POs) in JobBOSS for the toolroom and die builds.
6. Conduct communication meetings and offer support during the design, build and debug process.

Additional Job Duties and Responsibilities

7. Work with existing and new customers with product design support.
8. Perform quality assurance on completed designs.
9. Develop and maintain design standards.
10. Suggest and implement best practice methods, cost savings ideas and equipment improvements.
11. Work with Production on process improvement projects.
12. Maintain proper file management for all designs.
13. Support new tooling, die maintenance, EDM, CNC, Production, Quality, Fabrication, Purchasing and Quoting Departments with innovative engineering and design solutions.
14. Perform all other work-related duties as assigned.

General Duties and Responsibilities

- Report to work as scheduled.
- Participate in continuous improvement projects.
- Maintain a positive and safe working environment for all employees.
- Conduct self and perform assigned work in a safe manner, following approved safety procedures at all times.
- Report immediately to the Operations Manager or Leadership Team any and all problems, which may affect safety, equipment, tooling, part quality or the effectiveness of the Rotation Operating System.
- Maintain a neat and orderly work area at all times.
- Perform related duties as assigned or as the situation dictates.

Education and/or Experience

- High School Diploma
- 2 Year Machine Tool or Tool & Die Certificate
- Degree in Tool & Die Design and Engineering - Advanced training in die design, tool build, blueprint reading and geometric dimensioning and tolerancing.
- Minimum 5 years designing progressive and stage tooling in metal stamping industry.
- Minimum 5 years designing in CAD systems, *SolidWorks*, LogoPress/QuickPress.

Qualifications

Core Values

- Exemplify Rotation Engineering Core Values:
 - a. **Integrity:** *We have strong moral principles which drive us to “do the right thing” for our customers and one another.*
 - b. **Above and Beyond:** *We are motivated and committed to doing not just what is required, but what is needed. We strive to exceed expectations!*
 - c. **Customer-Driven:** *We think like our customer and make decisions with their satisfaction being the goal.*
 - d. **Attitude is Everything:** *We use an enthusiastic and energetic approach to meet challenges with a willing and positive attitude. “Let’s do it!”*
 - e. **Team First:** *We work together for the betterment of the company, respecting each other’s roles and abilities while always doing our individual best for the collaborative success of the team.*

Knowledge, Skills and Abilities

- Knowledge:
 - Engineering – Progressive and stage tooling design using *SolidWorks* software
 - Tool Build and tool maintenance knowledge of tool debug process using analytical tools as needed
 - Inspection – Knowledge of inspection equipment including the use of: Micrometer, caliper, dial indicator, height gauge, protractor and read blueprints with GD&T
- Skills:
 - Computer Skills, including Outlook, Word, Excel, PowerPoint
 - Quality Control Analysis – Conducting tests and inspections of products, services, or processes to evaluate quality or performance.
 - Active Listening – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
 - Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
 - Monitoring – Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
- Abilities:
 - Ability to interact appropriately with multiple types of personalities
 - Ability to retain composure under stressful situations
 - Ability to make decisions affecting due dates, quality and production
 - Near Vision – The ability to see details at close range (within a few feet of the observer) to ensure part quality meets customer requirements. Specific vision abilities required by this job include close vision and color vision.

Physical Demands

While performing the duties of this job, the employee is frequently required to sit; talk or hear; and use hands to handle, or touch objects or controls. Performs repetitive motion of fingers, hands, wrists, arms, shoulders and upper body while stacking, jogging and feeding product into presses. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

Work Environment

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Employee Acknowledgment _____ Date: _____

The above statements reflect the general details necessary to describe the principle functions of the occupation described and shall not be construed as a detailed description of all the work requirements that may be inherent in the occupation.