



Position: Senior Engineer
Department: Engineering

Company Overview

Specialty Products Company (SPC) is a leading designer and manufacturer of wheel alignment parts. Selling more than 1,500 sku's to customers on every continent, SPC sets the gold standard in product design, training, and customer service at the WD and installer level. SPC is an ISO/ TS16949 certified company. Since 1975, its commitment to quality at every step of the way has made SPC the installer's preferred wheel alignment part brand.

Summary of Duties:

An Engineer is responsible for developing and designing automotive suspension and alignment parts and tools. An Engineer reports to the Engineering department manager.

Required Competencies:

- **Bachelor's Degree:** 4-year degree in Mechanical Engineering
- **Automotive Knowledge:** Firm understanding of automobiles, with emphasis on suspension/ chassis components and functions across new and old platforms.
- **Mechanical Aptitude:** Able to disassemble / reassemble mechanical systems. Able to observe mechanical systems and understand function of sub-systems and components. Familiarity with common shop tools and their proper use.
- **Engineering Software:** Proficiency in computer software related to design (Solid Works / Simulation preferred), data analysis and content generation (e.g., Microsoft Office Applications)
- **Design:** Able to read and develop technical drawings and models to convey product and process designs, components, and specifications.
- **Complex Problem Solving:** Able to understand and evaluate system-level impacts of component design. Able to diagnose issues of tolerance stack, manufacturing variation, user errors, etc.
- **Critical Thinking:** Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- **Highly Detailed:** Able to process all forms of work with a high degree of accuracy and detail.
- **Communication Skills:** Able to receive and respond to daily work instructions and requests; communicate design, implementation, and testing ideas through verbal and written channels.
- **Time Management:** Able to manage multiple projects and work autonomously.
- **Physical Strength:** While performing the duties of this job, the employee is regularly required to; stoop, kneel and crouch, lift, bend and twist, use hands and fingers to manipulate small components, reach with hands and arms, read and write, talk and hear and use a computer. The employee must frequently lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision color vision, and ability to adjust focus.
- **Shop Working Environments:** Able to work near moderate noises, occasionally be exposed to fumes, chemicals, and the risk of electrical shock and vibrations typical to a shop environment.
- **Safety: Must follow all safety policies and guidelines, while also providing safety recommendations and bringing forth any concerns to management.**

Preferred Competencies:

- **Product Data Management Software:** Prior experience with data management software. (SolidWorks EPDM preferred)
- **Vehicle Dynamics:** Coursework or experience in vehicle/chassis dynamics
- **Product Testing and Validation:** Prior experience developing test plans, analyzing test data, writing engineering reports.
- **Fabrication and Machining Experience:** Hands-on experience welding, machining, metal-forming, and/or use of common hand power tools such as grinders, sanders, drills, saws, etc.
- **Active Learning:** Stay current on automotive related technology, processes, new vehicle models, advances in materials, tools and manufacturing methods, etc., and understand the current and future implications of the new information.
- **Geometric Dimensioning and Tolerancing:** Certified or well versed in GD&T principals and applications.

Example Activities

- Develop new product designs and/or applications.
- Creates new, and maintains, existing engineering models and drawings.
- Peer review production product drawings
- Assemble, install and evaluate prototypes.
- Create and maintain test records, test data, photo documentation, etc.
- Provide technical support to Purchasing, Quality, Manufacturing, Sales, and Customer Service
- Generate technical content for product instructions, FAQs, and marketing information.
- Other duties and responsibilities as assigned.

Senior Engineer Level Additional Required Competencies and Activities:

- **Vehicle Dynamics/Design:** in addition to coursework, experience or capability in advanced chassis and suspension design theory and calculations.
- **Geometric Dimensioning and Tolerancing:** **In addition to being certified or well versed in GD&T principals, a senior level position requires prior** experience or demonstrated capability in advanced ASME Y14.5 GD&T principals and applications.
- **Engineering Software:** Highly proficient in computer software related to design. This includes advanced SolidWorks modeling techniques. This also includes advanced Simulation studies (Non-Linear Static, Non-Linear Dynamic)
- **Product Data Management Software:** **In addition to** prior experience with data management software, a senior level position requires prior experience or demonstrated capability in creating and managing SolidWorks EPDM workflows and data management techniques.
- **Communication/Collaboration Skills:** may be designated responsibility for engineering tasks within a cross functional team and managing necessary engineering activities to drive project timelines.
- **Mentoring:** Prior experience or demonstrated capability as mentor, trainer, and/or subject matter expert to other Engineers as needed, and other departments as requested
- **Process improvements:** Will be responsible for identifying, recommending, and at the direction of the departmental manager implementing process improvement within the Engineering department.

I am able to perform the essential duties of this position with or without a reasonable accommodation:

If an accommodation is needed please indicate here:

Printed Name

Signature

Date