MECHANICAL DESIGN ENGINEER

Reports to: Vice President, Operations & Engineering
Approved by: Tom Rattini

Summary Description: Drives sales growth by developing and implementing product solutions for customer applications as targeted by the Sales team. Provides technical sales support as directed, with the goal of maximizing our share of business within targeted accounts. The position encompasses a broad range of responsibilities including:

- Capturing qualified voice of the customer (VOC) input for targeted projects
- Designing solutions that meet the customer’s needs within cost constraints following NCC’s New Product Development (NPD) process
- Creating appropriate professional presentation materials and design documents
- Delivering impactful presentations- in person, on the phone, or electronically
- Coordinating prototype and sample production
- Production launch planning, creation of drawings and bills of materials
- Customer project management and communication throughout the process

Additional responsibilities include supporting the on-going maintenance of drawings and BOM’s via Engineering Change Notices (ECNs) and support of the company’s operations excellence/continuous improvement initiatives.

Requirements & Qualifications:

- 5+ years of experience with Mechanical or Machine Design based on customer input, using 3D design software (Solidworks preferred).
- Competent in design specifications for common materials (steel & aluminum), and finishes (painting and plating). Knowledge of drafting standards and symbols including dimensioning, tolerances, and welding symbols.
- Experience creating and delivering presentations to introduce designs to customers using Microsoft Office Applications (PowerPoint, Word, Excel)
- Suitable College Bachelor’s degree in Engineering or Industrial Design
- Able to travel as required to scope customers needs, or present design solutions. Travel estimated as 1-2 trips per month on average.

Skills & Behaviors:

- Strong interpersonal skills; Extroverted and comfortable meeting new people
- Strong analytical and problem solving skills. Makes data based decisions.
- Excellent organizational skills; fosters cross functional team building.
- Exhibits leadership courage to influence the organization to achieve goals.
• Flexible, assertive and stress tolerant, optimistic, and socially responsible.
• High integrity and ethics, adheres to company regulations and follows Code of Conduct.

Principle Accountabilities:

Customer Interaction, Presentations, and Project Management
• Professionally represent the company in person, on the phone, and with presentation materials. Able to work independently after a training period.
• Confidently interact with the customer, and understand what success looks like for each stakeholder.
• Understand who decision makers are, and what technical presentation or communication is needed for them to be comfortable with ordering from NCC.
• Use closed loop communication style with customers on projects, with transparent milestone timing.
• Offer support to NCC Sales team with any research, analysis, or presentation materials that can increase our chances for success within targeted accounts.

Product Application Knowledge
• Learn product offering, and understand typical applications of current products.
• Develop ability to recommend the products that offer the customer the best value from our current product offering.
• Develop ability to select the correct components, materials, and finishes for the customer’s application.
• Apply learning and experience from past NCC NPD projects that were effective solutions for similar applications.

New Product Development (NPD) Execution
• Champion assigned projects through NCC’s NPD process. Achieve tollgate deliverables on time.
• Communicate with customers (both internal & external) to determine product requirements and needs. Understand “must have”, “nice to have”, and “will pay $$$ to have”. Understand VOC of all stakeholders (Purchasing, Ops, End user). Ask leading questions to establish main pains and root problems.
• Build safety, quality and productivity into product designs and fixtures to ensure cost-effective manufacturing. Develop error-proof designs and fixtures.
• Create bill of material (BOM) structure for new products, complete with accurate component part numbers and accurate BOM quantities.
• Create labor and work center structure within BOM’s.
• Develop new product cost summaries using BOM data, standard cost data, and time observation analysis as necessary.
• Manage engineering design costs and product design activities to achieve or exceed quoted pricing
• Work as part of a team to identify and resolve department problems; seek help when necessary
• Shows initiative- ability to manage work load with little supervision.

Engineering Documentation Process
• Ensure completion of all necessary administrative items within the ECN process.
• Create specifications for purchasing to procure goods and services necessary to meet finished product requirements.
• Create any required documentation to support the production process to include drawings, work instructions, check lists, etc.
• Detail all specifications with the necessary Critical to Quality (CTQ) criteria. CTQ data to assure all plant assembly can be executed efficiently and the critical product performance is attained.

Physical Requirements: Must be able to meet these requirements with or without reasonable accommodations.
Essential for job function requires the ability to:
• Sit for a minimum of 8 hours with limited breaks
• Stand for a minimum of 8 hours with limited breaks
• Stoop, twist, bend and work overhead as necessary
• Demonstrate manual dexterity
• Operate computer extensively on a daily basis
• Ability to prioritize projects and work on multiple tasks simultaneously

This description contains primary duties and does not necessarily reflect all responsibilities and duties for this particular position.

Rev History: 12/1/12 Original description