Senior Product Engineer

Fire Protection

Please submit all resumes to Cindy Gruca at cgruca@tenzingconsulting.com

Company Description: National Foam is part of the Angus International Safety Group of companies that design, manufacture, and sell fire prevention and fire protection equipment and firefighting foam concentrates. National Foam is one of the industry’s premier brands. The company manufactures one of the fire protection industry’s broadest portfolios of fire products including firefighting foams, fire apparatus (trucks), pumps, foam systems, monitors, and “Big Flow” equipment. National Foam and its sister companies are experts at designing, manufacturing, and fielding equipment and solutions for Special Hazard risks for a broad cross-section of markets that must protect property, assets, lives, and critical infrastructure.

National Foam is an Original Equipment Manufacturer (OEM) that has broadly three product families that comprise its fire prevention and fire protection product portfolios:

Firefighting Foam Concentrates:
- Company formulates, blends and manufactures the industry’s most comprehensive line of Class A and Class B foams for firefighting applications. This includes the company’s new line of Fluorine Free foams.
- Foams are specified and used by industrial, petrochemical, Oil/Gas, military, aviation and municipal customers

Fixed Fire Protection Systems:
- Company designs, engineers, and manufacturers a comprehensive portfolio of fire protection systems that are fixed (permanently installed) in all manner of facilities including ships, tank farms, manufacturing plants, airports, marine facilities, refineries, pipelines, LNG facilities, warehousing, and general infrastructure
- Systems normally store, proportion and deliver firefighting foam concentrates on the hazard
- Systems are normally bladder tanks, Balanced Foam Proportioning Systems (BFPS), In-Line BFPS, mobile foam generators, pump skids, nozzles, atmospheric tanks, valves and proportioners

Mobile Fire Protection Systems:
- Company designs, engineers, and manufacturers a comprehensive portfolio of mobile fire protection systems that are mobile (trailered, driven, or towed) that provide mobile firefighting capability.
- These systems protect all manner of facilities including ships, tank farms, manufacturing plants, airports, marine facilities, refineries, pipelines, LNG facilities, and general infrastructure.
- Products consist of “Balanced Form Proportioning System” (SERVO-COMMAND), trucks, foam trailers, mobile monitors, pumps (trailer and truck mounted), and completed integrated fluid movement systems, known as “Big Flow”.

National Foam, Inc.
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National Foam’s business model is unique in that it is the only “fully-integrated” fire systems and solutions companies in the industry that offers firefighting foam, fixed fire systems and mobile fire systems to its customer base. The company’s value model is its 100 years history of formulating firefighting foams AND then designing and manufacturing the equipment to proportion, store, transport and deliver that foam. These completely integrated systems (foam and foam equipment, both fixed and mobile) are used by, specified, and selected as the brand of choice by hundreds of customers globally that must have the very best technology and products to protect critical assets. Every major oil and gas company globally uses National Foam equipment and foam, as well as hundreds of other customers in the marine, aviation, industrial, petro-chemical, and pipeline markets.

National Foam also provides training and engineering seminars to a global clientele of fire fighters. The Company’s Industrial Fire Fighting school is known worldwide as the industry’s pre-eminent industrial fire training venue. The company is also the world leader in large-volume water movement solutions in fire environments, with particular emphasis on catastrophic, full-involvement fires in the industrial space.

**Position Description**

**SCOPE:** The Senior Product Engineer will work on and within the National Foam Engineering team, based in West Chester, Pennsylvania. This team works in conjunction with other functional groups in the organization including Project Management, Proposals, Supply Chain, Technical/Training and foam Research and Development. The Engineering teams supports all National Foam products globally and works in conjunction with other product management, sales, operations, and engineering teams globally.

**TACTICAL:** The senior product engineer will be a key contributor to goals and objectives of the National Foam Engineering team. The engineering team manages, engineers, supports, tests, and develops a comprehensive range of fire protection and prevention products for industrial and municipal applications.

The individual will be expected to work individually and in teams to help develop new products, value engineer current product lines, conduct engineering analysis, lead engineering value-stream exercises, and work with other functional groups within the organization including proposals, supply chain, quality, sales, project management and other global groups as appropriate.

Position is focused on engineering, design application, and product application and performance for a diverse range of firefighting products including pumps, monitors, wheeled equipment, fixed and mobile fire protection equipment, and proportioning devices. Position focusses on the interface of firefighting foam concentrates and water in the application and integration for diverse cross-section of firefighting solutions and systems.

Based on the above, the ideal candidate with have a strong mechanical and fluid hydraulics background. Expertise in electronics, power, hydraulics, engines, pumps, and control systems is beneficial.

Position demands strong technical and leadership skills in order to be successfully responsible for product designs and their applications. Position requires that engineer understand and design new versions of NF
product, verify via test and finalize production designs for release to operations. Position requires this engineer to serve as a subject matter expert for the National Foam product line of firefighting equipment supporting sales, proposals engineering and operations as necessary. Responsible for all associated contract fulfilment, product definition and product line maintenance duties associated with products assigned.

### Essential Job Functions:

- Develops designs, configures and modifies products to suit customer contractual needs.
- Performs required technical activities associated with projects using NF Operations tools such as Passport project management, FMEA, Cost Tracking and Technical Analysis, Root Cause Analysis, Mechanical Design and Calculation, Testing and Evaluation etc.
- Provides project status reports and measures metrics associated with internal process.
- Maintains close coordination with all relevant NF departments to ensure new/modified products are developed and released seamlessly to ensure attainment of customer expectation and project plan goals.
- Creates detailed product design specifications, which include comprehensive design packages, drawings, data sheets, O&M manuals, component purchasing specifications and spare parts lists.
- Supports 3rd party suppliers to support product /component production.
- Supports sales and Customer Service with Technical and Product Related Queries
- Performs other duties as assigned.
- Potentially will manage product qualification(s) programs both internally focused and potentially externally focused including UL and FM qualification and listings programs.
- Project management process and project management tools utilization may be required

### Required Education and Qualifications - General:

- Bachelor’s degree in Engineering or related field or an equivalent combination of education and five (5) years in an engineering environment.
- Minimum of 5 years of fire protection industry and product experience required. Strong preference for 10-15 years
- Working knowledge of machine control programming, pumps, engines, hydraulic systems and electrical systems
- Working knowledge of Fire Protection Methods, Systems and their design. (NFPA & UL Familiarity)
- Excellent project management skills
- Excellent problem solving and conceptual skills
- Strong cooperative decision making, and teaming skills.
- Strong Training Skills
- Fluency in CAD solid modeling. (Solidworks)
- Strong design skills including: drafting, BOM and part identification skills.
- General working knowledge and understanding of MRP.

### Skills and Specifications:

- Strong communication Skills.
- Must be capable and confident in engaging customers at all levels (technician level to senior management) and with all functional groups.
- Must demonstrate strong Team skills, with multi-disciplinary functional teams with a focus on collaboration.
- MS Office and general computer skills required.
- Use spreadsheet skills and Powerpoint
- Can follow and meet reporting deadlines.
• Excellent oral, written and interpersonal communication skills.

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