

Job Title: Mechanical Design Engineer, Cell Stack Components
Department: Technology
Location: Wallingford, CT

Nel Hydrogen

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Hydrogen... the most abundant element in the universe is your ticket to a rewarding future. Every day there are reports of how hydrogen (produced by water electrolysis and renewable energy sources) is displacing fossil fuels, reducing greenhouse gasses, and helping to revitalize our planet.

Nel Hydrogen is the global leader in on-site hydrogen generation and the largest electrolyser manufacturer in the world. Armed with a full portfolio of water electrolyzers and hydrogen fueling station technologies, Nel Hydrogen is leading the charge into the new green hydrogen economy.

If you are driven by personal initiative combined with loyalty and commitment to your team and the ability to convert complex issues into simple solutions, then we want to talk to you. Help make the world a better place. Join a company that is on the cutting edge of new energy innovations, with an energized, progressive culture.

POSITION SUMMARY

A key contributor in component design: analysis of mechanical stress and deformation, fluid flow, load distribution, tolerancing, and design for manufacturability, including preparation of detailed documentation and in-depth technical review.

RESPONSIBILITIES:

- Develop and design components and assemblies for electrochemical cell stacks, to meet functional requirements while minimizing cost. Order and inspect components for compliance with specifications.
- Perform engineering calculations to support design concepts, including stress analysis for mechanical robustness, CFD for uniform fluid distribution, and tolerance models.
- Use PTC Creo to create detailed drawings, assemblies, and bills of materials.
- Use equipment and hand tools to assemble and test cell stacks and associated systems. Prepare test plans, technical reports, drawings, and assembly processes.
- Perform research and testing to extend electrochemical cell stack functionality, identify novel approaches for cost reduction or increased reliability, and find new applications for existing technology elements.
- Collaborate with manufacturing team to design for manufacturability and volume production considerations, develop inspection criteria, and evaluate component suppliers.
- Support manufacturing team to disposition non-conforming product and assist technical service group with troubleshooting field returns.

QUALIFICATIONS:

Education:

BSME or MSME or equivalent.

Required Skills and Abilities:

- One to five years of industry related experience (fuel cells, fluidics, gas separation, flow batteries, piping systems, pressure vessels).
- 5 plus years of experience designing and analyzing precision components for complex assemblies.
- Capable of working well in a multi-disciplinary team environment with high degree of collaboration.
- Design of pressure containment devices or sealing systems.
- Familiarity with manufacturing processes including molding, machining, forming, and joining methods.
- Work experience supporting manufacturing operations.
- Supplier interaction and evaluation.
- Working familiarity with safe work practices and hazard analysis.

Preferred skills and abilities

- Experience with 3D CAD (PTC CREO strongly preferred)
- Experience with FEA (PTC Simulate or ANSYS preferred)

Competencies:

- Collaboration
- Initiative
- Creative problem solving
- Communication
- Time management
- Planning and execution
- Business ethics
- Commitment
- Ownership

Physical Requirements:

The above statements reflect the principal functions of the position and shall not be construed as a detailed description of all work requirements that may be inherent in the job.

Nel Hydrogen provides comprehensive health and insurance benefits for its employees as well as a stock option plan. The Company offers competitive paid vacation time, sick leave, and holidays.

The Company has a published Code of Conduct that all employees are expected to follow.

Visas

- Nel will only employ those who are legally authorized to work in the United States. This is not a position for which sponsorship will be provided.
- Individuals with temporary visas such as E, F-1, H-1, H-2, L, B, J, or TN or who need sponsorship for work authorization now or in the future, are not eligible for hire.

We are an equal opportunity employer We are an equal opportunity employer-M/F/Disabled/Veteran and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law. All employment is decided based on qualifications, merit, and business need.

To apply, please e-mail your cover letter and resumé to: nelctcareers@nelhydrogen.com.