

Ivys Energy Solutions: Mechanical Design Engineer

Ivys Energy Solutions, a dynamic early stage company working in alternative energy technologies such as hydrogen refueling infrastructure used for clean mobility, is seeking an experienced and highly motivated engineer or designer to join us as a Mechanical Design Engineer.

About the Position

Reporting directly to the Principal Engineer, the Mechanical Design Engineer will work closely with senior staff to aide in the planning and execution of product development activities and field deployment of hydrogen infrastructure solutions. The Mechanical Design Engineer will execute design and mechanical engineering activities for many projects across the company; including hydrogen dispensers, compression systems, hydrogen storage and delivery systems and station level designs. Additionally, the Mechanical Design Engineer may be expected to contribute to projects outside of the hydrogen field as needed. The applicant must be very comfortable in a startup environment and capable of flexing between multiple projects.

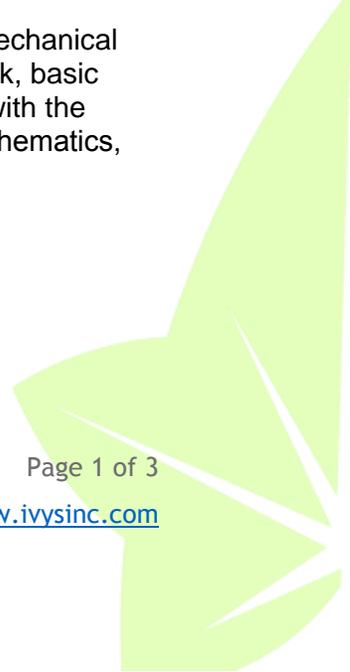
In addition to the qualifications and experience defined below, a successful applicant must have a passion to bring renewable energy technology to the marketplace and willing to work through the inherent challenges of new markets. At Ivys, we believe that a small group of motivated & determined innovators can make a real and lasting difference in the growing renewable energy landscape.

Detailed Position Responsibilities

The Mechanical Design Engineer is expected to have a fundamental understanding of mechanical and electromechanical engineering principles and apply this knowledge to the design of various products through concept to commercialization. He or she should have a basic understanding of hydrogen technology or similar gasses, and be able to learn hydrogen technology at an accelerated pace if needed.

The Mechanical Design Engineer should be comfortable in executing design activities on complex electro-mechanical systems that involve valves, tubing, sensors, heat exchangers, reactors, pumps and safety devices. The ability to understand and translate system requirements into mechanical design is a must.

Particular technical skill sets desired for this role include a deep understanding of mechanical design, proficiency in parametric modeling software such as SolidWorks or AutoDesk, basic understanding of strength of materials, fluid dynamics and heat transfer, familiarity with the design and implementation of piping codes, ability to interpret P&ID's and Wiring Schematics, and familiarity with design for manufacturing/service principles.



Essential Job Duties/Responsibilities:

Lead the design of complex electro-mechanical systems by using creative thinking and applying core engineering principals such as mechanics, fluid dynamics, thermodynamics and heat transfer to meet product deadlines, requirements and budgets. This includes:

- Translate system requirements, P&ID's and other documentation into 3-D CAD models and assembly drawings that conform to industry standards
- Develop and manage product bill of materials (BOMs) and product tree structure
- Specify and source various hardware and balance of plant components (e.g. hangers, valves, filters, sensors, fittings, tubing, pumps, etc.)
- Works with team to implement various codes and standards such as ASME B31, NFPA-2, CGA Hydrogen Series and building codes
- Participate in safety analysis such as PHA, HAZOP, FMEA, SWIFT, etc.
- Performs structural/vibrational analysis of mechanical systems using computer aided engineering tools such as Finite Element Analysis
- Participates or lead various activities including bench testing of components & subsystems, full scale system testing, click clack, and root cause analysis
- Assists in sourcing and management of contract manufacturers to ensure products are delivered in a timely manner
- 80% Office Tasks / 20% Lab and/or Travel

Leadership Qualities:

Confidence, self-starter, effective teamwork and effective communication skills are necessary for success in this role, including the following qualities:

- Excellent communication (listening, written, verbal, presentation) skills and ability to interact and motivate others in a positive/supportive manner;
- A collaborative and engaging work style – this role will be suitable for a person who enjoys working with others and being comfortable both learning from and teaching others
- Capable of balancing long-term design needs for commercialization and manufacturing with near-term design needs for fast prototype and fabrication
- Drive for continuous development, both individually and as a member of a team
- Uses previous experiences to facilitate “out of the box” solutions
- Demonstrated ability to influence decisions of highly qualified technical professionals in a constructive manner to evolve renewable energy technologies
- Help the company build a progressive learning culture and a team focused on execution.
- Act as a good steward of human resources and departmental budgets.
- Promote diversity and inclusion both within the company and with external partners, actively and openly engaging a wide range of coworkers and external stakeholders in decision making.
- Provide leadership in a fashion that supports the company's culture, mission and values.

Knowledge & Experience Qualifications

BS in Engineering or AS in Engineering with 15+ years of relevant experience, including the following qualifications:

- Relevant experience (3-5 years) in applying product design principals to emerging technologies in the energy and/or utility sector is desired. Direct experience with hydrogen energy technologies and equipment is preferred.
- Adept at parametric modeling software such as SolidWorks or AutoCAD is a must
- Experience in taking concepts successfully through prototype-to-commercialization lifecycles
- Proficient in various software suites including MS Office
- Experience with applying various codes and standards such as ASME B31 and National Fire Codes
- Proficiency in various manufacturing processes such as tube bending, plastic molding, sheet-metal forming, machining and welding is a plus
- Experience with GD&T and DFX is desired

Additional Information

For all positions, Ivys Energy Solutions offers competitive salary commensurate with experience; access to group health and dental insurance plans, flexible spending accounts, short and long term disability and other benefits. Flexible work hours and locations are available in appropriate cases.

Members of under-representative groups are encouraged to apply. Ivys Energy Solutions is an equal opportunity employer.

