

Job Description

Job Vacancy : Mechanical Design Engineer

Date: 03/09/2023

Location: Madison, Wisconsin (remote work may be available)

Salary: Highly Competitive Plus Benefits

Hours: Full Time

Contract Type: Permanent

Reporting to: Chief Technology Officer

About Type One Energy

Fusion energy is the clean power at the center of stars. Mastered here on earth, its unique advantages will rapidly disrupt carbon-based fuels to become the primary form of baseload power on the planet.

Type One Energy is a fusion energy startup applying innovations in additive manufacturing, quasi-symmetry, and HTS magnets to commercialize an economical stellarator power plant. The stellarator is an innovative marriage of elegant physics, engineering artistry, and practical utility.

Founded by experts and technology from the University of Wisconsin, Type One Energy is a world leader in stellarator R&D with the mission to provide clean and affordable fusion power to every city across the globe.

In collaboration with our public and private partners, we are uniting the outstanding operation of a stellarator with breakthroughs in theory, additive manufacturing, and high temperature superconducting magnets. We are producing an economical fusion power plant to be deployed worldwide in the shortest amount of time.

About the role

Type One Energy are looking for a highly motivated Mechanical Design Engineer to help develop the mechanical design of complicated 3D structural parts including RRP divertors, coils and first wall (vacuum vessel). The Mechanical Design Engineer will be responsible for the structural and thermomechanical integrity, the manufacturability, and the timely industry procurement of the complex 3-D shaped metal components.

The candidate will have a methodical but practical mindset, and be capable of evaluating and selecting emerging technologies through advanced analysis techniques. The candidate will be working in a fast paced, startup engineering environment and will be working closely with a growing and diverse

engineering team. The ideal candidate does not necessarily have to have fusion experience, but experience of working in aerospace, or similar highly technical industries is ideal.

Responsibilities

- Performing general component, system and design engineering activities including drawings, calculations, and reports.
- Perform design, assembly, testing and inspection of mechanical components and system functions.
- Implement design control and configuration control concepts.
- Implement concepts of design for manufacturing and system operations.
- Analyse complex computer codes and software
- Learn a variety of new procedures, processes and tools.
- Creatively solving mechanical engineering problems.
- Choosing the appropriate manufacturing/engineering techniques to ensure that the designs can be made quickly and economically.
- Communicating and liaising with other engineers, physicists and senior leadership team.

Required Qualifications and Experience

- Preference will be given to applicants with experience in advanced manufacturing and design.
- A Bachelor's degree in Engineering from an ABET-accredited university is required.
- Proven and relevant experience in mechanical engineering and design required.
- Experience of working in a similar, fast paced engineering environment.
- Experience of designing and testing complex 3D structural shapes.
- Must have general knowledge of project engineering activities (task plans, schedules, etc.)
- Ability to provide clear, concise, accurate and timely written and verbal communication is required.
- Must be a strong team player with the ability to develop effective relationships with internal and external customers and suppliers.
- Must be able to work in a team environment but also have the ability to work independently.

To Apply

Please send your CV and cover letter to Sam Belazka at sam.belazka@typeoneenergy.com and for more information please visit our website at www.typeoneenergy.com.

Also, as an example of previous work, applicants may submit any examples of mechanical designs or projects they have worked on.