

Job Title: Senior Mechanical Engineer
Location: Edinburgh (Onsite 3-4 days/week with flexible hybrid options)
Department: Engineering
Reports To: Chief Operating Officer
Position Type: Full-time
Compensation: £40-£45k + options

About Exergy3:

Exergy3 is a pioneering company specialising in ultra-high temperature thermal energy storage technology, with a mission to drive the decarbonisation of heat across Europe and beyond. As a spin-out from the University of Edinburgh, we are at the forefront of clean heat innovation, providing scalable, efficient, and cost-effective decarbonisation solutions for industrial processes and large-scale building heating.

Job Overview:

We are looking for an talented and motivated Senior Mechanical Engineer to join our growing, agile team in Edinburgh. You will play a critical role in the design, development, and implementation of cutting-edge thermal energy storage systems that spans mechanical, fluid, and electrical domains. This multidisciplinary role combines collaborative design thinking with hands-on role engineering delivery.

The ideal candidate will thrive in a dynamic, fast-growing environment, possess excellent problem-solving skills, and show initiative in scaling design and documentation processes as we move from prototyping to production and deployment.

Qualifications & Experience:

- Bachelor's or Master's degree in Mechanical Engineering or a related discipline.
- Strong background in mechanical engineering, with proven capability in senior or lead positions.
- Experience supporting projects through all phases, from concept to commissioning.
- Strong track record of cross-disciplinary collaboration (electrical, mechanical design, manufacturing).
- Strong communication skills, with the ability to collaborate effectively across teams and with external partners.

Key Responsibilities:

As a Senior Mechanical Engineer, you will work closely with the Chief Operating Officer, Chief Science Officer, the wider engineering team, technicians, subcontractors, and health and safety consultants to deliver robust, high-performing systems.

Mechanical Design & Engineering

- Detailed mechanical engineering design integrating mechanical, fluid, and electrical components, including tolerance management methods.
- CAD and drawing management: reviewing, organising, issuing, and maintaining up-to-date design documentation.
- Creation and maintenance of bills of materials.
- Experience in system-level engineering, especially within thermofluidic and electrical systems.
- Strong practical engineering skills, including rapid prototyping, modifications, and workshop support.
- Development of instruction manuals and assembly guides.
- Creation and implementation of design registers and other structured design documentation tools.
- Cost-reduction engineering: evaluating materials, manufacturing methods, and assembly processes.
- Development and execution of system test schedules.

Project & Change Management

- Leadership in co-ordinating, tracking, and delivering engineering work packages to meet deadlines.
- Oversight of change management processes to improve practices as the business scales.
- Coordination with subcontractors to ensure proper and timely documentation and delivery.
- Creation of risk assessments and method statements (RAMS) from an engineering perspective.
- Leading and documenting testing activities of workshop-built prototypes.

Workshop & Installation Support

- Technical management support of workshop operations: issuing drawings, assigning work packages, tracking progress.
- Supervision of technicians during build and assembly phases.
- Hands-on support to workshop teams for tooling, fabrication, and assembly guidance.
- Real-time technical support for field teams during site installations.
- Willingness to travel to deployment sites and oversee on-site installations.

Supplier, Procurement & Supply Chain

- Management of existing and new suppliers to ensure specification compliance and delivery.
- Procurement of components and systems: from specification through purchase and delivery.
- Support for supply chain resilience: alternative material and vendor identification.
- Develop clear and rigorous specifications, ensuring that supplier deliverables align with defined technical and quality requirements.

Desirable Additional Skills

- Electro-mechanical integration and specification of electrical components.
- Control system hardware and software adaptation experience.
- Ability to inherit and modify control software for new applications.
- Thermofluidic modelling, including CFD and FEA literacy.
- Strong first-principles-based modelling of thermal systems.
- Manufacturing engineering experience with design-manufacture interaction.
- Development of new technologies with potential for intellectual property protection.
- Sensor integration experience (e.g., pressure, temperature).
- Design risk registers for installation and operational phases.
- Experience with high-temperature systems.
- Company-wide organisation system development (e.g. SharePoint, document registers).
- Familiarity with engineering design processes required for achieving formal product certifications, including documentation, testing, and compliance audits.

Why Join Exergy3?

- Be part of a dynamic and innovative company at the forefront of clean energy technology.
- Play a pivotal role in driving the growth and success of Exergy3.
- Competitive salary and performance-based incentives.
- Opportunities for professional growth and development.
- Contribute to a sustainable future by promoting clean heat solutions.
- Opportunity to shape the design processes, documentation standards, and engineering practices at a critical growth stage.
- Be a key contributor in turning emerging technologies into commercially viable products.
- Work at the intersection of academic innovation and industrial impact, helping scale clean heat solutions across Europe.

What we offer:

- A supportive, inclusive team culture. We value diverse perspectives and encourage collaboration.
- £40k - £45k per annum depending on experience, and EMI options after 6 months.
- 34 days annual leave (25 flexible + 9 fixed annual leave days which can either be the Scottish Bank Holidays or aligned to the school term breaks in your council area of residence.)
- Hybrid working
- Compressed Hours (35 hr/week)

Application Process:

Interested candidates should submit their resume and a cover letter outlining their qualifications and vision for the role to recruitment@exergy3.com.

We understand that some candidates may be less likely to apply unless they meet all the listed criteria. If you're excited about the role and believe you could bring value to our team, we would love to hear from you.

Exergy3 is an equal opportunity employer. We celebrate diversity and are committed to creating an inclusive environment for all employees.

Timelines:

We hope to fill this position as soon as possible.