

Senior Mechanical Design Engineer - 3 Month Contract (Paternity Cover)
We're operating a hybrid work model where the role permits. Our labs and offices are in West London, for this role we are offering the flexibility of up to 4 days a week working from home.
Fixed-Term Contract - 3 Months (Starting Jan/Feb 2026)
£26.44 - 31.25 /hour (Experience Dependant)
Not applicable for this fixed-term contract.
25 days per annum Pro-rata equivalent for the 3-month duration.

We are committed to finding the best candidates, so if you're excited by the prospect of joining Supercritical then we encourage you to apply, even if you don't meet all of the requirements. Your unique skills and experiences may be exactly what we're looking for.

Whether you're motivated by technical challenges, opportunities for growth, or being part of a mission-driven organisation, you'll find a welcoming environment at Supercritical. We value trust and transparency.

Supercritical is proud to foster an inclusive environment. We believe diversity drives innovation and we ensure that every team member feels welcomed, valued, and empowered to succeed. We encourage applicants of all genders, ethnicities, backgrounds, and abilities to apply and help shape the future of clean energy.

Learn more about us at the end of this document or at www.supercritical.solutions.

The Opportunity:

Supercritical is seeking an experienced and dynamic Senior Mechanical Design Engineer to join our R&D team for a 3-month contract to cover parental leave. You will work closely with the Chief Technical Officer on core componentry in Supercritical's novel electrolyser, leading concept drawings, designs, and specifications. This is a crucial, high-impact role supporting our mission to transform green hydrogen production.

The ideal candidate will be available to start January/February 2026.



What you'll do:

- Be responsible for providing detailed designs and drawings in CAD (OnShape preferred, Solidworks acceptable) software to enable supply and manufacture of mechanical components and associated assemblies required.
- Identify opportunities for improvements to the product and / or associated processes for designing, developing and manufacturing the product.
- Provide mechanical design specifications and / or BoM's to enable procurement and order processing by the supply chain and manufacturing function.
- Provide technical leadership and / or support to enable the design, development and implementation of product improvement opportunities including working with 3rd parties in the execution of such work.
- Be skilled in the fast iteration, fail fast, quick prototyping approach
- Offer expert insight in system design reviews and in safety reviews such as FMEAs and HAZOPs.
- Interface and collaborate well with the electrochemical, process, safety and electrical teams to achieve Supercritical's common goal.
- Lead component supplier management and expediting.

About you

Ideally, you will:

- Be passionate about a net zero environment, excited by innovation and proactive in your pursuit
 of it.
- Have a BEng in mechanical engineering.
- 4+ years of professional experience as a mechanical engineer with demonstrable experience in component design for high volume manufacturing.
- Experience of drafting engineering drawings using the BS8888 drafting standard.
- Have participated in safety methodologies such as HAZOP, FMEA.
- Thrive in a startup environment as a self-starter and proactively identify problems and pursue solutions.
- Have strong organisational skills, attention to detail and enjoy working in a team environment.
- Be able to manage multiple projects simultaneously without losing sight of the long term goal.

Desirable

- Have experience with hydrogen design/operations.
- Knowledge of the hydrogen industry, electrolysers and/or fuel cell technologies is an advantage.
- Experience with supercritical water reactors.
- Experience of design of high pressure equipment (ASME VIII div 3, PD5500, EN 13445).
- Have a solid understanding of design and materials selection in corrosive environments.
- Have worked in early stage product development and delivering a pathway to commercialisation.



About Supercritical

Supercritical is transforming the future of green hydrogen production with the world's first high-pressure, ultra-efficient water electrolyser. Our groundbreaking technology uses heat and pressure to achieve the highest electrical efficiencies in the industry, producing hydrogen at high pressure for seamless storage and transport. By also co-producing oxygen, our innovations support decarbonisation in heavy industry, chemicals, transport, and more.

We are a well-funded team with years of runway and strong partnerships with leading global organisations. Our mission is to make green hydrogen affordable and sustainable, enabling a cleaner, more equitable future. By eliminating the costly and complex equipment required by traditional electrolysis, we are driving down the cost of green hydrogen and making it accessible to industries around the world.

We live by our values at Supercritical:

- Purpose in creating a legacy, driving positive change, for sustainability in all we strive for
- Transparency in the way we work, the way we share, in our honesty
- Partnership to achieve shared goals, to collaborate at all levels, to welcome challenges and different points of view
- Trust in our colleagues, in the rigour of our delivery, in respect for others
- Leadership in finding breakthroughs, empowering actions, innovating
- Curiosity in celebrating ideas, championing our passions, being positively restless

What Makes Us Proud:

- Our patented technology is redefining industry standards.
- We've demonstrated world-leading electrochemical efficiencies out of the lab.
- We are committed to sustainability, designing systems free from PFAS forever chemicals and rare earth metals.
- We're recognised globally:
 - Featured in CleanTech Group's "Top 50 to Watch for Climate Action."
 - Named a StartUS Insights "Top 5 Zero Emission Solution to Watch."
 - Runner-up and People's Choice in Shell's 2021 New Energy Challenge.
 - Finalist in OZ Minerals' Hydrogen Hypothesis.
 - Highlighted in CEMEX Ventures' Most Promising CleanTech Solutions.
 - Listed among Start Up Energy Transition's "100 Most Promising Global Energy Startups."

At Supercritical, we believe that innovation thrives when diverse perspectives come together. We're building a collaborative, inclusive team to create ultra-efficient, cutting-edge solutions for a sustainable future. Join us in solving some of the world's toughest energy challenges and making a real impact on the path to net zero.

www.supercritical.solutions