



Job Title	Mechanical Design Engineer
Flexibility	We're operating a hybrid work model where the role permits. Our labs are in Hanger Lane, but we also operate a home office. Home Office (80%) / West London (20%)
Type	Full time
Salary	£45,000 / annum Experience dependent
Equity	We want our team to be invested in the business, rewarded through the creation of value. For this reason all full time employees will be invited to join our share scheme .
Holiday	25 days

About Supercritical:

Supercritical is developing the world's first high pressure, ultra-efficient water electrolyser for green hydrogen production. The system will be capable of overcoming many of the limitations experienced by today's incumbent electrolysis technologies. By harnessing the benefits of heat and pressure, Supercritical's proprietary design enables us to operate in the region of the highest electrical efficiencies seen commercially today, whilst delivering hydrogen at high pressure which is perfect for storage. The resultant green hydrogen and oxygen products that we produce can be used to decarbonise heavy industry, chemicals, transport and more.

Globally 'Top 50 to watch for climate action' - CleanTech Group
Runner-up and People's Choice in 'Shell's 2021 New Energy Challenge' - Shell
Finalist 'Hydrogen Hypothesis' - OZ Minerals

The opportunity:

Supercritical is looking for a well-rounded and experienced Mechanical Design Engineer to join our team. You will work closely with the Chief Technical Officer on core componentry in Supercritical's novel electrolyser, leading concept drawings, designs and specifications. You will support manufacturing capability to ensure high levels of quality and repeatability in all componentry in the electrolyser, whilst ensuring inherently safe design and compliance with design standards. With multiple projects now secured, we are progressing multiple design iterations in parallel and increasing scales of operation. A key responsibility for this role is proactive oversight in order to ensure that the timelines for each supplier converge to result in timely module delivery. You must be able to communicate confidently with suppliers, customers and other third parties.



Mechanical Design Engineer Accountabilities:

You will

- Be responsible for providing detailed designs and drawings in CAD 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.
- 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

You will

- Be passionate about a net zero environment, excited by innovation and proactive in your pursuit of it.
- Have a Masters in mechanical or aeronautical engineering.
- 6+ years of professional experience as a mechanical engineer with demonstrable experience in component design for high volume manufacturing.
- 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.
- Proficiency using CFD modelling softwares (inc COMSOL/ANSYS).
- Have worked in early stage product development and delivering a pathway to commercialisation.

Direct applicants only - no agencies.

Supercritical are not currently in a position to sponsor overseas applications.