



Job Title	Process Engineer
Location	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 .
Type	Permanent
Salary	£45,000 - £55,000 (Experience Dependant)
Equity	We want our team to be invested in the business, rewarded through the creation of value. All new full time employees are invited to join our tax efficient share scheme .
Holiday	25 days + birthday off + public holidays
<p>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.</p> <p>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.</p> <p>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.</p>	
Other Benefits	<p>Flexibility and Supportive of Balance</p> <ul style="list-style-type: none"> - Flexible start and finish times - Flexible on home working - Flexible on working abroad <p>Parental Leave Policy - 3 months full pay for mothers and fathers</p> <p>Growth Opportunities - wide range of exposure and development</p> <p>Support for Training and Accreditation - professional fee coverage</p> <p>Monthly Team Days & Lunch Outings</p> <p>Option to buy 5 extra holidays</p> <p>Birthdays off!</p> <p>Team Milestone Celebrations</p> <p>Pension - 3% employee contribution + 5% employer contribution</p> <p>Referral bonuses</p>
Learn more about us at the end of this document or at www.supercritical.solutions .	



The Opportunity:

At Supercritical, we're not just building cutting-edge technology—we're shaping the future of clean energy. Working here means being part of a fast-moving, deeply collaborative team that thrives on innovation, curiosity, and impact. We operate with trust and transparency, valuing diverse perspectives that drive better solutions. Our culture is dynamic and ambitious, but also supportive—everyone has a voice, and great ideas come from everywhere. Expect to work alongside passionate experts who challenge the status quo, celebrate wins together, and push boundaries to make green hydrogen affordable and accessible.

Supercritical is looking for a dynamic, passionate and driven Process Engineer to join our product development team. We are looking for someone to help us shape our system design to meet our target KPIs on safety, performance, efficiency and cost.

You will be passionate about diving into complex problems to pioneer innovative and novel solutions for our challenging operating conditions, while asking “How can we do this better, safely?”, with a focus on bringing our proprietary electrolyser and associated balance of plant through increasing scales, from demonstrator to pilot and commercial scales. You will work directly with our Head of System and Senior Process Engineers to design and deploy larger scales within our test environments and partner sites. You will also support the Technology team who focus on electrolytic testing at larger and larger scales within our test environments and partner sites.

Whether it's solving complex engineering problems, securing partnerships, or scaling our breakthrough technology, every role at Supercritical is mission-driven. If you're looking for a place where your work genuinely matters, where you can grow, and where you'll be empowered to take ownership, you'll feel at home here.

What you'll do:

- Execute process engineering design activities in a timely and cost-effective manner.
- Collaborate with our subcontractors and vendors to enable our goals of commercial pilot plant deployment by 2027.
- Flowsheet development (PFDs), detailed design and mass and energy balance calculations.
- Process control and system design (Cause and effect, T&As, P&IDs).
- Calculation development for design and sizing of equipment, valves and instrumentation.
- Creating equipment and instrument specifications, and supporting the procurement process.
- Hazard identification and risk management (HAZID, HAZOP and LOPA).
- Support site/plant based activities - commissioning, performance testing and troubleshooting
- To work with Supercritical's technology team, to support our lab-scale testing and scale-up, working to minimise hazard and risk.
- Partner and vendor liaison and negotiation.

Direct applicants only - no agencies.

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



About you

Ideally, you're passionate about clean energy and eager to bring innovative ideas to life in a collaborative and inclusive environment. You will:

- Be a self-starter and proactively identify problems and pursue solutions.
- Have a master's degree or above in Chemical / Process Engineering.
- Have relevant experience within the Hydrogen, Chemical, Nuclear, or related regulated industries.
- Be comfortable in process engineering design from first principles.
- Have 3 years professional experience with process design.
- Contribute to an empowering culture around safety in our team.
- Have strong communication and organisational skills, attention to detail and enjoy working in a team environment.
- Be committed to inherent safe design and to the minimisation of risk.

Desirable

- Knowledge of water electrolysis, hydrogen, its applications and its uses.
- Design experience in hydrogen and oxygen.
- Design experience in supercritical water.
- Have experience in process modelling software such as Aspen, HYSYS, PRO II or Unisim.
- Experience in scaling up designs.
- Chartered engineer status.
- CFD/modelling experience.

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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

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