

Mechanical Design & Development Engineer (Industrial Equipment)

Location: Ipswich, Suffolk

Salary: Competitive, dependent on experience

Job Type: Full-time, Permanent

Reports to: Managing Director

About SolvAir

SolvAir Ltd designs and manufactures high-performance industrial air movement and drying systems for customers throughout the UK and around the world. Our equipment is used across a diverse range of industries including food and beverage, pharmaceuticals, packaging, manufacturing and process industries.

Our reputation has been built on engineering excellence, innovation, reliability and delivering practical solutions to complex industrial applications. Every machine we produce is designed with performance, quality and long-term reliability at its core.

We are now seeking an experienced **Mechanical Design & Development Engineer** to become a key member of our engineering team and play a significant role in the future development of our products and business.

The Opportunity

This is **not** a conventional CAD office role.

We are looking for an engineer who enjoys every stage of the engineering process—from developing an initial concept through to manufacture, assembly, testing, installation support and continuous product improvement.

You will design industrial equipment using 3D CAD, produce manufacturing documentation, build and evaluate prototypes, solve engineering problems and continually refine products through practical engineering and innovation.

The successful candidate will be equally comfortable working at a CAD workstation, assembling equipment in the workshop, discussing technical solutions with customers, or working alongside suppliers and production staff to solve engineering challenges.

This is an opportunity to become an influential member of a growing engineering company where your ideas will directly shape the products we manufacture and supply worldwide.

Key Responsibilities

Mechanical Design

- Design industrial machinery, mechanical systems and fabricated assemblies using modern 3D CAD software.
- Produce accurate manufacturing drawings in accordance with recognised engineering standards.
- Generate complete Bills of Materials (BOMs), assembly documentation and manufacturing information.
- Design equipment with manufacturability, reliability, serviceability and cost-effectiveness as primary objectives.
- Carry out engineering calculations where required to validate design integrity.
- Ensure all engineering documentation is accurate, controlled and maintained.

Product Development

- Develop new products from concept through to production.
- Improve existing products by enhancing performance, reliability, manufacturability and cost efficiency.
- Research new engineering technologies, materials and manufacturing techniques.
- Participate in engineering reviews and provide sound technical justification for design decisions.
- Identify opportunities for innovation and continuous improvement across the product range.

Practical Engineering & Prototype Development

A significant proportion of this role involves practical engineering.

The successful candidate will be expected to:

- Assemble prototype equipment from their own CAD designs.
- Carry out mechanical fitting and machinery assembly.
- Modify, improve and test prototype equipment.
- Diagnose design issues during testing and implement practical engineering solutions.
- Work confidently with workshop machinery, hand tools and measuring equipment.
- Support production during the introduction of new products.
- Assist with fault finding and engineering improvements where required.

We are specifically looking for someone who enjoys building, testing and proving their own designs—not simply producing drawings.

Project Ownership

- Take ownership of engineering projects from concept through manufacture and commissioning support.
 - Work closely with customers to understand technical requirements.
 - Liaise with suppliers, subcontract manufacturers and production teams.
 - Provide technical support to the sales department where required.
 - Assist with installation and commissioning support when necessary.
 - Ensure projects are delivered to agreed timescales and engineering standards.
-

Essential Qualifications & Experience

Applicants should demonstrate:

- Degree, HNC or HND in Mechanical Engineering or a related discipline.
 - **Typically 10 years or more experience** designing and developing industrial equipment or special-purpose machinery. Exceptional candidates with fewer years but outstanding practical engineering ability will also be considered.
 - Expert user of modern 3D CAD software (Fusion 360, SolidWorks, Inventor or equivalent).
 - Extensive experience producing manufacturing drawings, Bills of Materials and engineering documentation.
 - Excellent understanding of Design for Manufacture and Assembly.
 - Strong knowledge of stainless steel fabrication, welded assemblies, sheet metal design and machined components.
 - Practical workshop experience assembling, testing and improving mechanical equipment.
 - Excellent mechanical problem-solving ability.
 - Strong communication skills with the confidence to work directly with customers, suppliers and colleagues.
 - Full UK driving licence.
-

Desirable Experience

Experience in any of the following would be advantageous:

- Industrial air movement systems.
- Industrial blowers and fans.
- Pneumatic systems.

- Conveyor systems.
 - Industrial drying and cleaning equipment.
 - Food and beverage manufacturing machinery.
 - Machine automation and integration.
 - CE / UKCA machinery compliance.
 - Industrial equipment installation and commissioning.
-

Personal Attributes

The successful candidate will:

- Be naturally curious and enjoy solving engineering problems.
 - Take pride in producing elegant, practical engineering solutions.
 - Be equally comfortable using CAD software or working with tools in the workshop.
 - Think commercially as well as technically.
 - Take ownership of projects and enjoy seeing designs become working machinery.
 - Possess excellent attention to detail.
 - Be self-motivated and capable of working independently.
 - Enjoy working within a small, highly collaborative engineering team.
 - Be committed to continuous learning and improvement.
-

Recruitment Process

Our recruitment process has been designed to identify engineers with both exceptional design capability and practical engineering skills.

Shortlisted candidates should expect to complete:

- A practical mechanical assembly exercise to demonstrate workshop competence, mechanical aptitude and attention to detail.
- A 3D CAD design exercise to assess engineering judgement, design for manufacture and engineering problem-solving.
- A technical interview covering previous engineering projects, design philosophy and practical experience.
- A discussion with the Managing Director to explore career aspirations, values and suitability for working within a small engineering business where every individual has a significant impact.

We are looking for an engineer who can demonstrate not only excellent design ability, but also the practical skills to build, test and continually improve the equipment they create.

What We Offer

- Competitive salary, commensurate with experience.
 - A varied and technically challenging role within a respected engineering company.
 - Opportunity to influence future product development.
 - Projects covering the complete engineering lifecycle from concept through manufacture.
 - Modern engineering tools and software.
 - Professional development and training opportunities.
 - Supportive, collaborative working environment.
 - Long-term career progression with increasing responsibility.
 - Opportunity for occasional UK and overseas travel to support customers and projects.
-

Why Join SolvAir?

This is a rare opportunity for an experienced engineer who enjoys both design and practical engineering.

You won't simply produce drawings before passing projects to someone else—you will help conceive, develop, build, test and continually improve industrial machinery that is used by customers around the world.

If you are the type of engineer who naturally asks:

"How can this be made stronger, simpler, easier to manufacture and more reliable?"

and you take genuine satisfaction from seeing your ideas become successful engineering solutions, we would be delighted to hear from you.