

Job Description

TITLE:	Mechanical Design Engineer
REPORTING TO:	Head of Operations & Compliance
DEPARTMENT:	Operations

PURPOSE OF THE ROLE

Highly Skilled and detail orientated Mechanical Design Engineer responsible for the conceptualisation, design and development of mechanical systems and components. Working closely with cross-functional teams to bring innovative products from concept through to market, ensuring that all designs meet functional, safety, and manufacturing requirements and supporting wide range of legacy product through obsolescence and BOM management.

- Design and maintain mechanical components and assemblies using CAD Software (preferable experience with Autodesk Inventor).
- Create detailed engineering drawings, specifications and BOMs in accordance with industry and customer standards.
- Perform tolerance analysis, design for manufacturability and assembly and design optimization.
- Work with manufacturing, quality, project engineers, and external stakeholders to ensure designs are feasible and cost effective.
- Participate in design reviews, brainstorming sessions and project planning meetings.
- Develop prototypes and support testing to validate mechanical design performance.
- Support documentation and change management processes.
- Stay current with emerging trends, technologies and best practices in mechanical engineering.
- Provide technical support to Business development activities, including identification and notification of opportunities and risk.

KEY WORKING RELATIONSHIPS:

The Mechanical Design Engineer shall work closely with all functions of the organisation to resolve problems and remove roadblocks to ensure deliverables are achieved and should actively contribute to improvements in line with:

- a. The business mission and vision as set out in our strategic objectives.
- b. Company values:

The Mechanical Design Engineer should be looking to cultivate strong working relationship the supply chain and within PJL in line with Petard SPIRIT values.

- **Safety:** Ensure that materials and practices are sustainable and promotes a Health and Safety culture within the workplace. Safety is at the heart of all we do.
- **Partnership:** Develop long term relationships with team members, and support functions within the organisation through communication, respect, and trust.
- **Innovation:** Be aware of global and commodity changes in the landscape and offer alternative solutions where practical.
- **Responsive:** Deliver on actions and commitments within the agreed timeframes.
- **Integrity:** Be responsible, considerate, and fair in actions and interactions.
- **Talent:** Proactively identify and feedback what development and skills can be cultivated that will allow you and your team to offer a service to the customer that will exceed expectations and achieve personal development goals.

EXPERIENCE / KNOWLEDGE

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The ideal candidate will hold an engineering degree and have at least five years of relevant industry experience. They will have a strong track record of contributing effectively to cross-functional project teams and be experienced in the development and design of complex products and systems, utilising a range of manufacturing techniques. A confident and professional communicator, the candidate will be comfortable engaging with customers during technical discussions, particularly during the blueprinting and development of new products. They should possess the ability to make critical technical decisions that drive successful product delivery to market. Proficiency in 2D and 3D CAD modelling using Autodesk Inventor is preferable, including the ability to model conceptual and finalised design alternatives as well as modify existing engineering and manufacturing data packs. Experience conducting Design Failure Mode and Effects Analyses (DFMEAs) and a sound understanding of engineering drawing standards are also required. Additionally, experience in producing and managing technical construction files and securing approvals from notified bodies is highly desirable. Computer literacy, including proficiency in Microsoft Word, Excel, PowerPoint, and Project, is essential. The role requires the ability to manage multiple projects simultaneously and a willingness to support sustaining engineering activities when necessary. The candidate must also be prepared to travel within the UK and abroad at short notice if required.

QUALIFICATIONS

For this role relevant and demonstrative experience will be considered along with formal qualifications:

- Engineering Degree
- 5+ years of experience in a mechanical design role, especially in a technical environment or industry.

SKILLS ATTRIBUTES

Essential:

- Effective organisational, and verbal/written communication skills.
- Mechanical/electrical engineering knowledge with sound Engineering judgement.
- A self-starter with a positive attitude with customer focussed approach.
- High level of conceptual thinking, creativity, analytical and problem-solving skills.
- Ownership & accountable to deliver results.
- Strong cooperation with engineering team peers and interfacing functions to projects.
- Ability to understand and manage customer requirements, expectations and needs.
- Ability to guide and mentor junior engineers within the team.
- Ability to build rapport with others and influence within the location, project teams and customer cadences.
- Ability to decipher customer product requirements.
- Excellent interpersonal and communication skills with colleagues at all levels.
- Flexible approach with the ability to manage various priorities.
- Creative thinker.
- Excellent problem solver.
- Team focussed.

SPECIFIC RESPONSIBILITIES

Specific responsibilities include:

- Duties as outlined in the above role description.
- Such other duties as Petards may from time to time reasonably require.
- Availability to travel both nationally and internationally as the role may require.