

Job Description



Customer



Accountability



Integrity



Excellence

Job Title:	Senior Design Engineer		
Department:	Engineering	Location:	Stroud
Direct Reports:	None	Reports to:	Product Design Manager
Dimensions:	Design inputs and solutions		
Date Created:	November 2023	Review Date:	April 2026
Job Purpose	To work as part of the Design Engineering Team; interpreting customer specifications to configure existing products or create new product designs, creating models and drawings using 3D CAD, creating Bills of Material and documentation to support business functions. Overseeing engineering design tasks related to customer enquiries to ensure delivery of work packages to the required quality, delivery and cost.		
Key Accountabilities	- Interpret customer requirements / specifications and translate into engineered product design, aligning with both technical & commercial requirements. - Ensure tasks are planned & prioritised to support on-time delivery to project requirements. - Produce detailed designs for new products using 3D CAD. - Produce 3D Models, Engineering Drawings, and BOMs to allow manufacture of components. - Solve mechanical Engineering problems and be able to demonstrate a clear and logical methodology. - Perform & document Engineering calculations to allow colleagues and third-parties to interpret and validate the results. - Perform FEA analysis where necessary to assess and document suitability of new designs / design modifications. - Analyse & document test data to verify compliance to specification requirements. - Compile professional engineering documents for distribution internally and to the customer, discussing and presenting report findings when necessary. - To ensure designs are accurate and conform to required design codes (API, ISO, PED, ASME VIII) and customer specifications. - Utilise DFM / DFA methodologies in all design work. - Participate in Continuous Improvement initiatives, including problem-solving to enhance existing products and processes. - Checking of Drawings and B.O.M.'s. - Support the transition of new products into Production. - Input into Engineering strategy, policies & procedures to drive company direction. - Act as a mentor to other Engineers within the business. - Support the Engineering department at a variety of meetings both internally and occasionally at Customer sites, providing Engineering support and advice as appropriate. - Deputise for the Principal Engineer when required. - Other Engineering tasks as delegated by the Product Design Manager. - Business Travel will be required from time to time.		

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Expertise	• A recognised qualification in Mechanical Engineering. • Experienced user of 3D CAD for design and drafting. • Conceptual & detailed design skills. • Design for Manufacture & Assembly. • Experience of designing high pressure equipment to industry standards. • Ability to produce detailed design calculations and reports. • Experienced in the use of Finite Element Analysis. • An understanding of materials and their applications, metals in particular. • Familiarity in the use of Geometrical Design and Tolerancing (GD&T). • To have a pro-active attitude and be able to demonstrate good analytical and problem-solving skills. • Knowledge of using an MRP System (e.g. Visual, Syteline) to produce BOM's. • Experience of using a Quality management system database. • Work to and promote high standards of quality, with a strong focus on safety. • Knowledge of technical software such as MathCAD and LabView. • A positive approach with good interpersonal skills, and the ability to work independently or as part of a team. • The ability to plan your own activities within a project and be adaptable to changing priorities and demanding deadlines. • Proficient in the use of MS Office Products, particularly Excel.
Impact	Define and present the overall Engineered design solution being offered, including specific details, which meet all industry standards and customer requirements / specifications. Act as a key technical representative for the business and be able to clearly demonstrate intricate knowledge of design specifics and technical requirements.
Resource	Required to manage own time and liaise with other stakeholders as appropriate to maximise outputs, efficiencies, stakeholders' satisfaction, and business reputation. Responsible (along with other colleagues in the department) for the effective updating/upkeep of the design database, to ensure records are upheld and 100% accurate.
Complexity	Interpret technical specifications, perform Engineering calculations & data analysis, and undertake direct research into a range of subjects and areas, to ensure all aspects of product design / offering comply with industry and customer requirements.



Influence	Internal: • Production Management Team • Design Engineers • Production Engineering • Research & Development • Quality Assurance and Control • Sales and Contracts • Planning and Purchasing • Machine Shop, Assembly and After Market Departments
Quality, Health, Safety & Environment	• Health, Safety & Environment To show responsibility, compliance and full commitment to any required Health, Safety and Environmental standards. • Quality Management System To show responsibility and compliance with Quality Management, including all relevant procedures and work instructions in operation.
ESG	Environmental, Social, and Governance (ESG) • Required to show a strong commitment to ESG, complete assigned training and take responsibility for how to contribute within your role.