

## Senior Mechanical Design Engineer – Mechanical Job Description

### Role Purpose:

To provide mechanical engineering expertise in support of the design, development, test and manufacture of products and processes for a wide range of applications, especially in medical technologies and Healthcare and Life Sciences markets. The Senior Engineer is viewed as a specialist in their area of discipline, offering innovative solutions at business-unit level, contributing to development and improvement activities.

### Key Responsibilities:

- To maintain consistent and documented compliance with all relevant Safety, Health and Environmental (SHE), quality and best practice requirements.
- To provide in-house mechanical design and development services in support of projects.
- To convert a customer requirement into a design specification and subsequently into a detailed design.
- To generate conceptual design, layout, prototyping, bill of materials, mechanical piece part drawings, assembly drawings.
- To assemble and test prototypes.
- To identify new technical developments and trends, translate these into building blocks for opportunities within the business unit, initiating the creation of (new) technological innovations/applications.
- To maintain and exploit a network of relevant external stakeholders, customers, partners, research organisations and authorities, to represent the business unit as a credible specialist in networks, identifying opportunity for future projects and developments.
- To work as part of a project team with both engineers and scientists.
- To formulate and present possible solution directions and issue advice at request or at own initiative.
- To provide clearly documented records of technical data, decisions, methodologies, calculations and software use in accordance with ISO/FDA quality standards.
- To support the Procurement and Engineering teams for specification, tendering, factory and site acceptance tests for new equipment.
- To prepare and provide reports for clients as required.
- To ensure all areas of responsibility are carried out in line with the Company's current standards and methods, maintaining all required documentation and records.
- To provide advice and support to the business development team in their communications with external customers
- To take ownership in agreeing weekly workplans with line manager, project manager(s) and other relevant stakeholders, and delivering plan to agreed schedule.

**Direct reports:** No direct reports

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## Person specification

### Education / Qualifications:

Essential:	Desirable:
<p>Educated to <b>Degree</b> level (or equivalent) in mechanical engineering plus significant industrial experience.</p> <p>Or</p> <p>Educated to Master Degree level (or equivalent) in a Scientific/Engineering discipline plus relevant industrial experience.</p>	<p>Chartered status with a relevant professional institution.</p>

Competencies and behaviours	
<p style="text-align: center;"><b>Leadership (Influencing)</b></p> <ul style="list-style-type: none"> <li>• Promotes commitment to CPI’s strategy, vision, values, and direction.</li> <li>• Motivates, inspires, and build resilience in others by making the vision shareable by everyone.</li> <li>• Rewards and celebrates success with colleagues and teams.</li> <li>• Future proofs work practices.</li> <li>• Trusts others’ judgment and demonstrates a willingness to try new things, even at the risk of failure.</li> <li>• Willing to take on technical lead roles for larger projects.</li> </ul>	<p style="text-align: center;"><b>Decision Making (Influencing)</b></p> <ul style="list-style-type: none"> <li>• Confidently draws reliable conclusions from diverse and sometimes incomplete data.</li> <li>• Proactively sources and refers to how others have tackled similar problems previously.</li> <li>• Considers risks, and consequences, and takes accountability for, the impact the decision has on the business including costs/ benefits.</li> </ul>
<p style="text-align: center;"><b>Communication (Influencing)</b></p> <ul style="list-style-type: none"> <li>• Employs comfortably a wide range of communication styles and approaches to suit different situations and audiences (external and internal stakeholders) in diverse situations.</li> <li>• Builds effective two-way communication channels within the business area and across departments whilst maintaining credibility and securing commitment.</li> </ul>	<p style="text-align: center;"><b>Developing self and others (Enabling)</b></p> <ul style="list-style-type: none"> <li>• Supports others in their development.</li> <li>• Is personally committed to, and actively seeks, opportunities to improve continuously.</li> <li>• Provides honest helpful feedback to others on their performance.</li> <li>• Insightful about self, strengths, and limitations, and how to maximise contribution.</li> </ul>

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Collaboration (Guiding)	Delivery (Influencing)
<ul style="list-style-type: none"> <li>• Displays a collaborative style in day-to-day working whilst motivating others to achieve optimal performance and results.</li> <li>• Develops relationships which facilitate the resolution of complex tasks and can apply different techniques to effectively mitigate any conflict.</li> <li>• Can negotiate skilfully in tough situations with all stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepares and maintain schedules for activities and events for projects.</li> <li>• Delegates responsibilities for tasks and decisions to the appropriate staff; sets SMART objectives and monitors progress.</li> <li>• Researches capabilities and constraints, in advance of a project, which could affect its approach and outcomes.</li> </ul>

### Knowledge and Experience:

Essential:	Desirable:
<p>Will possess technical expertise in area of work as well as a compelling evidence of complex technical problem solving.</p> <p>Has a good working knowledge and practical experience of design, development or manufacture of mechanical devices.</p> <p>Has previously worked in a managed mechanical design aspect of products from research concepts through to production.</p> <p>Has in-depth knowledge of techniques for Design for Manufacturing, assembly, test, and maintenance.</p> <p>Has the ability to source suitable components and manufacturers and manage those outsourcing projects.</p> <p>Has a broad technical knowledge and background gained across a range of industries and technologies.</p> <p>Extensive experience in 3D CAD design and FEA.</p> <p>Has experience of interpretation of standards, such as medical device standards.</p> <p>Has an understanding of key mechanical engineering principles e.g., material selection, assembly techniques and manufacturing processes.</p>	<p>Has experience in the following areas:</p> <ul style="list-style-type: none"> <li>• The design, development or manufacture of photonic systems or photonics-enabled products.</li> <li>• Design, development or manufacture in a medical device or IVD context.</li> <li>• Working under a EN ISO 13485 Quality Management System.</li> <li>• Designing machined parts.</li> <li>• Rapid prototyping techniques (design and operation).</li> </ul> <p>Has a working understanding of the FMEA process.</p>