

DESIGN ENGINEER

Business Area: Engineering and Design

Location: Head Office – Jet Park

Reporting to: Director Technical

Why this role exists

Pilot Crushtec designs and manufactures equipment that must perform reliably in demanding operating environments.

The **Design Engineer** is responsible for translating customer, operational, and product requirements into practical, safe and cost-effective engineering solutions.

This role combines mechanical design, product development, technical analysis and cross-functional support to ensure that new and existing Pilot equipment is designed, documented, manufactured and improved to the required technical, safety and quality standards.

Key Responsibilities

Engineering Design & Product Development

In this role, you will:

- Develop mechanical designs for new and existing Pilot Crushtec products.
- Translate customer and operational requirements into practical engineering solutions.
- Conceptualise new products, systems and improvements to existing equipment.
- Conduct feasibility studies, engineering calculations and design verification.
- Prepare and review detailed and assembly drawings in accordance with applicable engineering standards.
- Ensure designs consider manufacturability, functionality, cost, safety and maintainability.
- Support the ongoing development and improvement of Pilot's product range.

Drawings, BOMs & Technical Documentation

You will also:

- Ensure accurate generation and maintenance of detail and assembly drawings.
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- Create and maintain accurate Bills of Materials for sub-assemblies and complete machines.
- Maintain complete and accurate engineering project files, including drawings, calculations, correspondence and project plans.
- Ensure all design changes, amendments and modifications are correctly documented and communicated.
- Support the accuracy of operating manuals and spare-parts documentation in collaboration with the Technical Writer.
- Maintain engineering records in accordance with Pilot Design Office standards and procedures.

Design Change & Engineering Control

- Manage engineering changes through the approved Engineering Change Order process.
- Investigate engineering problems and identify appropriate corrective solutions.
- Ensure design changes are introduced efficiently and communicated to all affected departments, suppliers and stakeholders.
- Maintain compliance with applicable numbering systems, design controls, safety analysis and notification requirements.
- Support corrective and preventative actions relating to engineering issues.

Testing, Verification & Technical Problem Solving

- Plan and support mechanical testing and verification activities.
- Analyse test results and recommend design improvements where required.
- Support machine assembly, commissioning, testing and field fault-finding when necessary.
- Investigate technical failures and identify root causes.
- Develop practical and sustainable solutions to engineering challenges.
- Apply sound engineering judgement when balancing technical, operational and commercial requirements.

Design Reviews & Project Coordination

- Arrange and facilitate formal design reviews throughout the design and development process.
- Ensure actions arising from design reviews are documented and followed through.
- Develop project plans and timelines for engineering projects.
- Provide regular progress updates to the Engineering & Design Manager.
- Identify risks, delays or technical challenges early and recommend appropriate actions.

- Maintain clear communication across all stakeholders involved in engineering projects.

Cross-Functional Technical Support

- Provide technical support to Production, Sales, Purchasing and Customer Support teams.
- Work closely with Manufacturing to ensure designs can be produced efficiently and accurately.
- Support Sales with technical input into customer requirements and proposed solutions.
- Engage with suppliers where technical clarification or product development support is required.
- Share relevant technical information across departments to support successful delivery of projects and products.

Product & Market Understanding

- Develop an in-depth understanding of Pilot Crushtec products and their operating principles.
- Maintain knowledge of crushers, screens, conveyors and related material-handling equipment.
- Monitor competitor equipment and relevant industry developments.
- Identify new product, application and improvement opportunities.
- Apply market and operational insights to future product development.

Governance, Safety & Engineering Compliance

- Ensure designs comply with relevant machinery legislation and applicable safety standards.
- Consider requirements applicable to local and export markets, including CE requirements where relevant.
- Adhere to Pilot Crushtec engineering procedures, standards, policies and governance requirements.
- Ensure engineering decisions prioritise safety, quality and technical integrity.
- Represent Pilot with professionalism, responsibility and sound engineering judgement.

Preferred Experience Required

- Strong practical understanding of mechanical engineering principles.
- Experience in mechanical design and product development.
- Advanced CAD modelling and detailing capability.
- Strong understanding of manufacturing processes and construction methods.
- Experience producing detailed engineering drawings, including welding symbols and geometric tolerances.

- Exposure to materials-handling equipment would be advantageous.
 - Experience with crushers, screens and conveyors would be advantageous.
 - Knowledge of FEA and computer simulation tools would be advantageous.
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Preferred Qualifications & Technical Skills

- Diploma or Degree in Mechanical Engineering, or equivalent recognised qualification.
 - Strong grounding in technical drawing, strength of materials and machine design.
 - Advanced CAD capability.
 - Strong analytical and mechanical problem-solving skills.
 - Ability to perform engineering calculations and technical analysis.
 - Ability to interpret operational requirements and translate them into practical engineering solutions.
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Preferred Attributes – The Pilot-Way Fit

We are looking for someone who:

- Thinks analytically and solves problems methodically.
 - Can visualise ideas and translate concepts into practical designs.
 - Demonstrates strong attention to detail and technical accuracy.
 - Takes ownership and accountability for engineering outcomes.
 - Communicates openly and professionally with colleagues and stakeholders.
 - Works collaboratively across disciplines and departments.
 - Uses initiative and is resourceful in solving problems.
 - Makes sound decisions based on engineering principles and available information.
 - Demonstrates integrity, respect and a consistent pursuit of excellence.
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The Ideal Individual

The ideal individual has:

- Enjoys turning complex technical challenges into practical engineering solutions.
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- Thinks beyond the drawing and considers how a design will be manufactured, assembled, operated and maintained.
 - Balances technical excellence with cost, practicality and customer requirements.
 - Takes pride in producing accurate drawings, calculations and engineering documentation.
 - Is naturally curious and continuously looks for ways to improve products and designs.
 - Works comfortably across Engineering, Production, Sales, Purchasing and Customer Support.
 - Is willing to engage directly with equipment during assembly, testing and field fault-finding.
 - Takes ownership of technical decisions and follows engineering issues through to resolution.
 - Embodies The Pilot-Way through innovation, collaboration, accountability and a commitment to excellence.
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Interested?

If this opportunity resonates with you, you meet the above requirements, or if you know someone who could fit into our family, and are excited to represent Pilot Crushtec in the field as a **Design Engineer**, please apply with a CV and a brief motivation no later than **2 October 2026** to **jobs@pilotcrushtec.com**