

Quality Control Engineer

Job Scope

A Quality Control Engineer ensures that products or processes meet established quality standards and specifications. This role involves implementing quality control procedures, conducting inspections and tests, analyzing data, identifying defects or non-conformities, and collaborating with cross-functional teams to improve quality and prevent issues. The Quality Control Engineer is crucial in maintaining product integrity, customer satisfaction, and continuous organizational improvement.

Responsibilities

- Quality Control Procedures: Develop and implement quality control procedures and standards based on industry best practices and company requirements. Ensure adherence to quality control processes across all production or service delivery stages.
 - Inspection and Testing: Conduct inspections, tests, and measurements on raw materials, components, intermediate products, and finished goods to verify compliance with quality standards, specifications, and regulatory requirements. Utilize appropriate tools, instruments, and techniques to perform inspections accurately.
 - Defect Analysis and Root Cause Investigation: Identify and analyze defects, non-conformities, or deviations from quality standards. Investigate root causes of quality issues and collaborate with relevant teams (e.g., manufacturing, engineering, procurement) to implement corrective and preventive actions.
 - Data Analysis and Reporting: Collect, analyze, and interpret quality data and metrics using statistical techniques and quality control tools. Prepare reports and presentations summarizing quality performance, trends, and improvement opportunities. Present findings to management and relevant stakeholders.
 - Process Improvement: Collaborate with cross-functional teams to identify process improvements and enhance product quality. Participate in continuous improvement initiatives, such as lean manufacturing or Six Sigma projects, to optimize processes and reduce defects.
 - Supplier Quality Management: Collaborate with the procurement team to assess supplier quality and establish quality requirements for purchased materials or components. Conduct supplier audits, monitor supplier performance, and address quality issues with suppliers.
 - Quality Documentation and Compliance: Maintain accurate and up-to-date quality documentation, including standard operating procedures (SOPs), work instructions, quality control plans, and inspection reports. Ensure compliance with relevant quality standards, regulations, and customer requirements.
 - Training and Education: Provide training and guidance to employees on quality control procedures, standards, and tools. Promote a culture of quality awareness and continuous improvement throughout the organization.
 - Customer Complaint Resolution: Collaborate with customer service or sales teams to
- address and resolve customer complaints related to product quality. Investigate complaints,

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coordinate corrective actions, and provide timely responses to customers.

Quality Audits and Certifications: Support internal and external quality audits to verify compliance with quality standards and certifications. Participate in implementing and maintaining quality management systems, such as ISO 9001 or other relevant standards.

Requirements

• Bachelor's degree in engineering, quality management, or a related field. Advanced degrees or certifications (e.g., Certified Quality Engineer – CQE) are advantageous.

Proven experience as a quality control engineer or in a similar quality assurance role.

Strong knowledge of quality control principles, methodologies, and tools (e.g., statistical process control, failure modes and effects analysis, root cause analysis).

Familiarity with quality management systems and relevant industry standards (e.g., ISO 9001, AS9100, IATF 16949).

Proficiency in using quality control tools and software, data analysis software (e.g., Minitab, JMP), and Microsoft Office Suite.

Strong analytical and problem-solving skills, with the ability to interpret complex data and draw meaningful conclusions.

Excellent attention to detail and organizational skills to manage multiple tasks and priorities.

Effective communication and interpersonal skills to collaborate with cross-functional teams and present quality-related information.

Knowledge of manufacturing processes, inspection techniques, and relevant regulations in the industry.

Experience with continuous improvement methodologies (e.g., lean manufacturing, Six Sigma) is beneficial.

Ability to work independently, take initiative, and drive quality improvement initiatives.

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