

# ICTQual AB



## Qualification Specification

### ICTQual AB Level 3 Certificate in Quality Control Manufacturing



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# ICTQual AB's

## Level 3 Certificate in Quality Control Manufacturing

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## **Qualification Specification about**

# **ICTQual AB Level 3 Certificate in Quality Control Manufacturing**

### **About ICTQual AB's**

ICTQual AB is a distinguished awarding body based in the United Kingdom, dedicated to fostering excellence in education, training, and skills development. Committed to global standards, ICTQual AB's provides internationally recognized qualifications that empower individuals and organizations to thrive in an increasingly competitive world. Their offerings span diverse industries, including technical fields, health and safety, management, and more, ensuring relevance and adaptability to modern workforce needs.

ICTQual AB's delivers high-quality educational solutions through a network of Approved Training Centres worldwide. Their robust standards and innovative teaching methodologies equip learners with practical knowledge and skills for personal and professional growth. With a mission to inspire lifelong learning and drive positive change, ICTQual AB's continuously evolves its programs to stay ahead of industry trends and technological advancements.

### **Course Overview**

The ICTQual AB Level 3 Certificate in Quality Control – Manufacturing is a comprehensive and practical qualification designed to establish a foundational understanding of quality control principles within manufacturing environments. The course aligns with internationally recognised quality management standards and prepares learners to implement effective control processes across various production settings. Through a structured and standards-based approach, learners gain in-depth knowledge of core quality concepts including inspection techniques, defect analysis, compliance monitoring, documentation, and corrective action systems. Emphasis is placed on the integration of quality objectives at every stage of the production cycle, enabling learners to uphold consistency, reduce waste, and ensure conformance to technical and regulatory requirements. This qualification supports the development of analytical and practical competencies that are essential for ensuring product integrity, process stability, and customer satisfaction within a competitive manufacturing landscape.

## Course Aim

The aim of this course is to equip learners with the knowledge, understanding, and skills necessary to monitor, maintain, and improve quality standards in manufacturing operations. It promotes a proactive quality control culture by enabling learners to identify deviations, propose corrective measures, and contribute to the continuous enhancement of production systems. The qualification focuses on practical application, fostering skills that enhance operational reliability, minimise rework, and support compliance with statutory and internal quality benchmarks. It also lays the groundwork for progression into supervisory roles in quality or further advancement into more specialised quality management areas.

## For Whom This Course Is For

- Entry-level quality control inspectors and operatives working in manufacturing settings
- Production and assembly line staff seeking to enhance their quality awareness
- Individuals aspiring to enter the field of manufacturing quality assurance
- Technicians or engineers wishing to formalise their knowledge of quality standards
- Team members responsible for ensuring conformance to manufacturing specifications and procedures
- Quality professionals in the early stages of their careers who require formal training to support on-site quality initiatives

This qualification is suitable for those seeking to build a solid foundation in quality control and is particularly relevant for individuals working in sectors such as electronics, automotive, textiles, plastics, machinery, and general manufacturing.

## Certification Framework

Qualification title	ICTQual AB Level 3 Certificate in Quality Control Manufacturing
Course ID	QC0020
Grading Type	Pass / Fail
Competency Evaluation	Coursework / Assignments / Verifiable Experience
Assessment	<p>The assessment and verification process for ICTQual AB's qualifications involves two key stages:</p> <p><b>Internal Assessment and Verification:</b></p> <ul style="list-style-type: none"><li>✓ Conducted by the staff at the Approved Training Centre (ATC) to ensure learners meet the required standards through continuous assessments.</li><li>✓ Internal Quality Assurance (IQA) is carried out by the centre's IQA staff to validate the assessment process.</li></ul> <p><b>External Quality Assurance:</b></p> <ul style="list-style-type: none"><li>✓ Managed by ICTQual AB's verifiers, who periodically review the centre's assessment and IQA processes.</li></ul> <p>Verifies that assessments are conducted to the required standards and ensures consistency across centres</p>

## Entry Requirements

To enroll in the ICTQual AB Level 3 Certificate in Quality Control Manufacturing, learners must meet the following requirements:

- **Minimum Age:**

Learners must be at least 16 years of age at the time of enrolment to join this qualification.

- **Educational Background:**

A basic secondary education is required. Learners should have a foundational understanding of mathematics, science, and English, as these subjects support the core principles covered in quality control.

- **Industry Experience:**

While prior experience in manufacturing or industrial environments is not mandatory, it is considered beneficial. Learners with hands-on exposure to production or inspection processes will find it easier to relate to the practical aspects of the course.

These requirements are designed to make the qualification accessible while maintaining the standard needed for effective learning and application within manufacturing quality control roles.

Qualification Structure

This qualification comprises 3 mandatory units. Candidates must successfully complete all mandatory units to achieve the qualification.

Mandatory Units	
Unit Ref#	Unit Title
QC0020-01	Fundamentals of Quality Control in Manufacturing
QC0020-02	Inspection Techniques and Measuring Instruments
QC0020-03	Product Defects, Non-Conformities, and Corrective Actions

Centre Requirements

To ensure quality training delivery, centres must adhere to the following standards:

1. Centre Approval

- ✓ Centres must be formally approved by ICTQual AB’s before delivering this qualification.
- ✓ Approval involves a review of facilities, policies, and staff qualifications.

2. Qualified Staff

- ✓ **Tutors:** Must hold a qualification equal to or higher than the Level 3 Certificate in Quality Control – Manufacturing, with demonstrated industry experience in manufacturing or quality assurance.
- ✓ **Assessors:** Must hold a recognized assessor qualification (e.g., CAVA, AVRA) or equivalent)
- ✓ **Internal Quality Assurers (IQAs):** Must hold a recognized IQA qualification (e.g. Level 4 Award in the IQA and Level 4 Certificate in Leading the IQA) and experience to oversee assessment standards.

3. Learning Facilities

Centre must offer:

- ✓ Private study areas and internet-enabled workspaces (for blended or physical delivery)
- ✓ Academic and pastoral support for learners
- ✓ Administrative support must be available to manage enrolment, tracking, and learner queries efficiently

4. Health and Safety Compliance

- ✓ All training facilities must comply with health and safety regulations.
- ✓ Centres must conduct regular risk assessments for practical activities.

5. Learning Resources

- ✓ **Course Materials:** Approved textbooks, study guides, and digital content must align with the qualification standards.



- ✓ **Assessment Tools:** Templates and guidelines must be provided to ensure standardized evaluation processes.
- ✓ **E-Learning Support:** Centres offering online or blended learning must implement an effective Learning Management System (LMS).

## 6. Assessment and Quality Assurance

- ✓ Centres must ensure assessments meet ICTQual AB's competency standards.
- ✓ Internal quality assurance (IQA) must be conducted to maintain consistency.
- ✓ External verifiers from ICTQual AB's will review assessment and training practices.

## 7. Learning Support

- ✓ **Qualification Guidance:** Support for coursework and assignments.
- ✓ **Career Pathway Assistance:** Information on progression opportunities in sustainability and energy sectors.
- ✓ **Accessibility Support:** Accommodations for learners with disabilities or language barriers.

## 8. Policies and Compliance

Centres must uphold the following policies in accordance with ICTQual AB's standards:

- ✓ Equality, Diversity, and Inclusion Policy.
- ✓ Health and Safety Policy.
- ✓ Safeguarding and Learner Protection Policy.
- ✓ Complaints and Appeals Procedure.
- ✓ Data Protection and Confidentiality Policy.

## 9. Reporting Requirements

- Centres must provide ICTQual AB's with regular reports on learner registrations, progress, and certification outcomes.
- Assessment records must be maintained for external auditing and quality assurance purposes.

## Support for Candidates

Centres should ensure that materials developed to support candidates:

- ✓ Facilitate tracking of achievements as candidate's progress through the learning outcomes and assessment criteria.
- ✓ Include information on how and where ICTQual AB's policies and procedures can be accessed.
- ✓ Provide mechanisms for Internal and External Quality Assurance staff to verify and authenticate evidence effectively.

This approach ensures transparency, supports candidates' learning journeys, and upholds quality assurance standards.

## Assessment

This qualification is competence-based, requiring candidates to demonstrate proficiency as defined in the qualification units. The assessment evaluates the candidate's skills, knowledge, and understanding against the set standards. Key details include:

### 1. Assessment Process:

- ✓ Must be conducted by an experienced and qualified assessor.
- ✓ Candidates compile a portfolio of evidence that satisfies all learning outcomes and assessment criteria for each unit.

### 2. Types of Evidence:

- ✓ Observation reports by the assessor.
- ✓ Assignments, projects, or reports.
- ✓ Professional discussions.
- ✓ Witness testimonies.
- ✓ Candidate-produced work.
- ✓ Worksheets.
- ✓ Records of oral and written questioning.
- ✓ Recognition of Prior Learning (RPL).

### 3. Learning Outcomes and Assessment Criteria:

- ✓ **Learning Outcomes:** Define what candidates should know, understand, or accomplish upon completing the unit.
- ✓ **Assessment Criteria:** Detail the standards candidates must meet to demonstrate that the learning outcomes have been achieved.

This framework ensures rigorous and consistent evaluation of candidates' competence in line with the qualification's objectives.



Unit Descriptors

QC0020-01- Fundamentals of Quality Control in Manufacturing

This unit introduces learners to the foundational principles of quality control in a manufacturing setting. It explains the purpose and benefits of applying quality control practices, including improved efficiency, reduced waste, and increased customer satisfaction. Learners will explore the relationship between quality standards, procedures, and workplace roles, and understand how quality fits into the full production process. The unit also highlights the importance of following quality documentation, identifying process requirements, and supporting the achievement of consistent product output.

Learning Outcome:	Assessment Criteria:
1. Understand the basic principles and objectives of quality control in manufacturing.	<div>1.1 Describe the fundamental principles of quality control.</div> <div>1.2 Explain the purpose of quality control in a manufacturing setting.</div> <div>1.3 List at least three key objectives of a quality control system.</div> <div>1.4 Provide an example of how quality control benefits a manufacturing company.</div>
2. Identify the role of quality control in maintaining product standards and customer satisfaction.	<div>2.1 Explain how quality control helps to achieve set product standards.</div> <div>2.2 Describe the impact of consistent product quality on customer satisfaction.</div> <div>2.3 State how quality control contributes to brand reputation.</div> <div>2.4 Explain the importance of meeting customer expectations regarding product quality.</div> <div>2.5 Provide an example of a quality control check that directly affects product standards.</div>
Recognise the stages of quality control processes in a production environment.	<div>3.1 List the typical stages of quality control within a production line.</div> <div>3.2 Describe the activities that take place at each stage of the quality control process.</div> <div>3.3 Explain the sequence of quality control stages from raw material to final product.</div> <div>3.4 State the purpose of quality checks at different points in the production process.</div>

**QC0020-02- Inspection Techniques and Measuring Instruments**

This unit develops learners’ abilities to carry out accurate product inspections using established methods and common measuring instruments. It covers visual inspection techniques, sampling plans, and measurement procedures using tools such as vernier callipers, micrometres, height gauges, and templates. Learners will learn how to prepare for inspections, interpret product specifications, take precise readings, and record inspection results correctly. The unit also includes guidance on maintaining and verifying the accuracy of instruments, ensuring reliable inspection outcomes that support quality compliance.

Learning Outcome:	Assessment Criteria:
1. Learn how to use common measuring tools and instruments used in quality inspections.	<div>1.1 Identify at least four different types of measuring instruments used for quality inspection.</div> <div>1.2 State the correct procedures for using a vernier caliper.</div> <div>1.3 Explain how to read a micrometer to obtain an accurate measurement.</div> <div>1.4 Describe the safety precautions when using measuring instruments.</div>
2. Understand visual, dimensional, and functional inspection techniques.	<div>2.1 Describe the purpose of a visual inspection.</div> <div>2.2 Explain the differences between dimensional and functional inspections.</div> <div>2.3 Provide examples of products that would require a functional inspection.</div> <div>2.4 List common characteristics checked during a visual inspection.</div> <div>2.5 Describe the types of measurements taken during a dimensional inspection.</div>
3. Accurately interpret measurement results and detect variations from standards.	<div>3.1 Read and record measurement data correctly.</div> <div>3.2 Compare a measured value against a given standard to find variations.</div> <div>3.3 Explain how to document a product that falls outside of the acceptable tolerance.</div> <div>3.4 State the steps to take when a measurement shows a significant variation.</div>

**QC0020-03- Product Defects, Non-Conformities, and Corrective Actions**

This unit enables learners to identify and report product defects and understand how non-conformities are managed within manufacturing operations. It explores the types and causes of defects, how to distinguish between acceptable variations and serious quality issues, and the steps involved in investigating and reporting non-conformities. Learners will also study the principles of corrective and preventive actions, including root cause identification and improvement tracking. The unit encourages proactive thinking and supports the learner’s ability to contribute to maintaining and enhancing product quality.

Learning Outcome:	Assessment Criteria:
1. Identify common types of manufacturing defects and their root causes.	<div>1.1 List three common types of defects found in manufacturing.</div> <div>1.2 Provide a likely root cause for a given defect.</div> <div>1.3 Describe the visual appearance of a specific manufacturing defect.</div> <div>1.4 State the importance of finding the root cause of a defect.</div>
2. Distinguish between conforming and non-conforming products.	<div>2.1 Define a conforming product.</div> <div>2.2 Define a non-conforming product.</div> <div>2.3 Explain the difference between a product that is within specification and one that is not.</div> <div>2.4 Provide a scenario and determine whether a product is conforming or non-conforming.</div> <div>2.5 State the correct procedure for handling a non-conforming product.</div>
3. Apply corrective action procedures to prevent recurrence of quality issues.	<div>3.1 List the steps in a corrective action procedure.</div> <div>3.2 Describe an action to fix a specific quality issue.</div> <div>3.3 Explain the purpose of monitoring a corrective action after it has been implemented.</div> <div>3.4 State the importance of documenting all corrective actions.</div>

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