



SUPPLIER DEVELOPMENT MANUAL

EZ-VS-PU-PR-02 REVISION 001

QUANEX HARDWARE SOLUTIONS UK



Title	EZ-VS-PU-PR-02 Supplier Development Manual		
Revision	001		
Date	June 2025	Review Date	June 2026
Approved by	Steve Holt	Author	J Yates

Foreword

Competing in today's global market, Quanex Hardware Solutions UK requires that products and services must be of high quality and delivered on time, increasingly within short lead times and at a com cost.

For Quanex Hardware Solutions UK to be successful and meet the needs of our customers, we must have a process in place that encourages, supports and ensures our suppliers meet quality expectations.

To ensure this, the role played by our suppliers is crucial to our future success and it is our intention to involve suppliers as partners in our plans.

The objective of this manual is to define the basic system requirements that we will use and expect our suppliers to use to ensure that our mutual responsibilities for product and service quality are understood and implemented.

We look forward to your support as our partners and believe that by working together we can develop our supply chain to the benefit of all.

Jody Yates
Head of Quality
QHSUK



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Introduction

For Quanex Hardware Solutions UK (QHSUK) to succeed in a competitive global market, it is imperative that we develop close and open relationships with our suppliers, where mutual efforts support a continual improvement environment. Increasingly stringent and demanding economic and quality requirements from the marketplace compel us to understand and continually improve our supplier base.

QHSUK UK's goal is to progress and expand our existing global base to become the world leader in our chosen market fields. To ensure we achieve this target QHSUK has developed specific strategies that include:

- Long-term relationships with fewer suppliers.
- Close interaction among manufacturing, engineering, purchasing and quality personnel of QHSUK and our suppliers.
- Deployment of Advanced Product Quality Planning.
- Assure compliance of market specific requirements such as BS EN ISO 9001:2015 and other customer and regulatory standards.

It will also be used as a standard for the development of existing relationships between QHSUK and its current approved supplier base. It is applicable to all suppliers of manufacturing materials (e.g. raw materials, components, assemblies) or processing services (e.g. plating, heat treatment, NDT etc) to QHSUK facilities at:

ERA Home Security Limited Valiant Way Wolverhampton West Midlands WV9 5GB www.erahomesecurity.com info@erahomesecurity.com	Zoo Hardware Limited Dukes Drive, Kingmoor Park North, Carlisle CA6 4SH www.zoohardware.co.uk sales@zoohardware.co.uk
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Please remember that if there is any doubt regarding any of QHSUK requirements then contact must be made during your Contract Review phase.



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Sustainability

Supporting QHSUK Achieve its Sustainability Targets

Why it's important to QHSUK.

Sustainability is core to QHSUK overall strategy and important to both its customers and investors. The Group's ambitions and targets are set out in its 2030 sustainability roadmap, covering sustainable operations, sustainable culture and sustainable solutions. In 2023, QHSUK had its Greenhouse Gas (GHG) emissions reduction targets validated by the Science Based Targets Initiative (SBTi) for both its operational scope 1 & 2 emissions and its scope 3 emissions from purchased goods and services, the latter accounting for 76% of QHSUK value chain carbon footprint. QHSUK suppliers have a key role to play in supporting the Group meet its carbon reduction, packaging and hazardous substances elimination goals.


QHSUK's Sustainability Goals Relevant to Suppliers

QHSUK has set itself the following sustainability targets:








1. Achieve 100% sustainable packaging for its products by the end of 2026.
2. Eliminate priority hazardous substances (Chromium VI, lead [Pb] and PFAs) from its products and supply chain processes by 2026.
3. Reduce Scope 1 and 2 emissions by 46.2% by 2030 from a 2019 baseline, in line with a 1.5°C trajectory.
4. Reduce absolute scope 3 GHG emissions from purchased raw materials and products by 27.5% by 2030 (vs a 2019 baseline) in line with a well below 2°C trajectory.

Suppliers are expected to play their part in contributing to these goals and replicating similar levels of ambition in their own organisations. Lower carbon materials cover raw materials and components such as aluminium, steel, zinc, polymers, brass, electrical equipment that go into QHSUK products.


Sustainability Expectations

	What we expect from our suppliers:	Flag
5.1 Sustainable packaging and eliminating single-use plastics	5.1.1 Work with QHSUK and provide plans that set out the supplier's approach and timeline to eliminate single-use plastic from product packaging supplied to QHSUK by YE 2026. Priority shall be given to moving away entirely from plastic packaging through packaging re-design or replacement with a sustainable sourced timber, cardboard or paper alternative.	

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	5.1.2 Where eliminating single-use plastic packaging is not feasible, using plastic with a minimum 30% recycled content (post-consumer not post-production waste) is permissible, subject to approval by QHSUK. Evidence of the steps taken to do find alternatives to single use packaging must be provided to apply for this exemption.	
5.2 Priority hazardous substances (CrVI, Pb, PFAs)	5.2.1 Where hexavalent Chromium (CrVI) is used in your operations, process or supply chain, work with QHSUK provide your plans for setting out your approach and timeline to eliminate the use of this hazardous substance.	
	5.2.2 Where copper alloys (brass) or other compounds containing lead are used in your operations or in products supplied to QHSUK, confirm the % lead content and your plans to limit the use of lead as far as possible such as lead-free copper alloys or substituting copper alloys with alternative (lead-free) materials.	
	5.3.3. Where Per-and-polyfluoroalkyls (PFAs) are supplied in the products, components or materials provided to QHSUK, work with QHSUK and provide plans setting out your approach for eliminating/removing these substances.	
5.3 Operational GHG emissions reductions	5.3.1 Decarbonise their own direct operations with ambitious targets and plans to deliver significant reductions in absolute Scope 1 and 2 emissions by 2030. These plans should include but not be limited to, investments in energy efficiency projects, certified 100% renewable electricity supply contracts, renewable power projects such as solar and other low carbon technologies.	
5.4. Source low carbon materials	5.4.1 Calculate the carbon footprint of the raw materials, products or components supplied to QHSUK.	
	5.4.2 Provide supporting evidence of the carbon footprint of the raw materials, products or components supplied to QHSUK, such as % recycled content (post-consumer), documented supplier declarations (detailing kg CO ₂ e) or formal Environmental Product Declarations (EPDs) independently verified by trade associations for generic product categories or bespoke assessments for specific products.	

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	5.4.3 Work with QHSUK and provide plans that set out the supplier's approach and timeline to delivering substantial absolute reductions in the carbon content of the raw materials, products or components supplied to QHSUK by 2030. These plans shall include substituting low carbon materials for high carbon materials (e.g. steel vs aluminium), reducing the amount of material (product lightweighting) or switching to high levels or recycled content (e.g. for carbon intensive materials such as aluminium).	
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QHSUK Supplier Mission

Together we are inspired to enable best in class value chain partnerships to the delight of our customers.

To respond to the changing environment, we need to improve and implement new capabilities.

- Single Ways of Working to build clarity both within QHSUK and towards suppliers
- Critical product features are defined and communicated to suppliers.
- Purchased part quality expectations are clear, and risk based.
- Supplier capabilities and performance are measured, tracked and visible.
- "Right first time, every time" to become the norm.

Key Roles and Responsibilities

QHSUK builds strong partnerships with suppliers in many functional areas to ensure and maintain a focus on Quality. QHSUK understands our business segments are different in nature and, in some cases, have unique roles and responsibilities based on the business or market they represent. Within a partnership, it is important that the roles and responsibilities within QHSUK be defined. Key interfacing roles are:

Supplier

As a QHSUK supplier, your organization is responsible for developing and maintaining a quality management system to ensure consistent performance to deliver quality parts, products, and services. This includes the suppliers' responsibility for ensuring compliance to the contract and compliance to QHSUK specifications for the part, product or service provided. This includes compliance to local and National Regulations/Law.



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Procurement

Procurement is the primary integration point linking sourcing with technology, aligning QHSUK Product and Supplier Technology Roadmaps, and managing sourced components. Procurement coordinates parts specifications with the selection of potential suppliers according to predefined criteria. The selected suppliers must meet stringent quality requirements set by QHSUK.

Supplier Quality

QSA (Quanex Sourcing Asia) assures that the suppliers' Quality Management System (QMS) meets the applicable QHSUK quality and regulatory requirement. There are processes in place to assure initial selection, evaluation, approval, and monitoring of suppliers. Supplier Quality will utilize APQP (Advanced Product Quality planning) to ensure the right level of risk mitigation is in place within the Supply chain. Supplier quality leverages Supplier Quality Improvement Programs & Supplier Improvement Process.

General Requirements

The following are **mandatory** requirements that we expect our suppliers to fulfil.

Right of Access

Suppliers shall provide access to their premises and facilities for QHSUK UK, our customers and regulatory authorities for co-operation on product, process and business issues.

Notification of Organisation Changes

Changes to the supplier's organisation that may affect quality and/or finance, shall be notified in advance to QHSUK. These changes may include Company ownership, company name, manufacturing location, quality approvals, significant changes to operational techniques or processes, materials or quality control protocols, Product markings or certifications, general process or manufacturing methods and inspection techniques.

Applicability

All suppliers are to fully comply with the stated requirements of this manual. Individual waivers on certain elements may be granted at the discretion of QHSUK.

Application for dispensation for any element of this manual is to be made in writing and presented to QHSUK who will action the request internally with the relevant function.



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Purchase Order Requirements

The supplier shall adhere to all Purchase Order Terms & Conditions plus stated special instructions. The PO is the controlling document and will communicate any deviations to the requirements stated within this manual, the drawing, engineering specifications Product Specifications or other as authorised to the supplier. Any queries must be highlighted and reported to QHSUK, prior to the commencement of any work.

Protection of information

Any information the supplier receives from QHSUK must be kept confidential and never disclosed to any third party without the prior written agreement of QHSUK. The proprietary information can include but is not restricted to all versions of electronic data, drawings and documentation, Tooling and materials. Under no circumstance is the supplier to make a direct approach to QHSUK UK's customers in relation to agreed business dealings. Any information received from QHSUK suppliers will be treated in the same manner. This protection of information is covered under the QHSUK Non-Disclosure Agreement. It is the supplier's responsibility to flow down all / any Non-Disclosure Agreements through the supply chain for all QHSUK contracts. All NDA's will reviewed annually and re-signed every five years.

Code of Conduct

This code is applicable to all QHSUK UK's supplier base and outlines the essential need for suppliers, their employees and sub-contractors to operate to the highest standards of business integrity in their relationship with QHSUK.

QHSUK wishes to work collaboratively with all suppliers to ensure proper understanding and compliance with this code of conduct. It is recognised that there are different legal and cultural environments in the countries that QHSUK UK's supply base operate in, however this code of conduct sets forth the minimum requirements that all suppliers should meet in doing business with QHSUK.

Suppliers must ensure that all their employees are aware of their contribution to product conformity, product safety and the importance of ethical behaviour.

Suppliers must comply with all national and other applicable laws and regulations relating to the respective country of operation. This includes ensuring that business transactions with QHSUK are fully reported / recorded, ensuring that their employees are aware and properly trained to meet the requirements.



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QHSUK expects its suppliers to make proper provision for the health, safety and welfare of its people, visitors, contractors, customers and those in the community who may be affected by their activities.

Suppliers are expected to engage with QHSUK professionally, avoiding any conflicts of interests. This requirement applies equally to business relationships and personal activities.

Conflict Materials Policy

QHSUK support putting an end to the violence and human rights violations in the mining of certain minerals from a location described as the “Conflict Region”, which is situated in the eastern part of the Democratic Republic of the Congo (DRC) and surrounding countries. As a result, the U.S. Securities and Exchange Commission (SEC) adopted final rules to implement reporting and disclosure requirements related to Conflict Minerals, as directed by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. The rules require manufacturers who file certain reports with the SEC to disclose whether the Products they manufacture or contract to manufacture contain Conflict Minerals that are “necessary” to the functionality or production of those products.

The definition of “Conflict Minerals” refers to gold, tin, tantalum, and tungsten, regardless of where they are sourced, processed or sold. We support these requirements to further the humanitarian goal of ending violent conflict in the Democratic Republic of the Congo (DRC) and in surrounding countries, which has been partially financed by the exploitation and trade of Conflict Minerals.

Our Commitment:

- Support the aims and objectives of the U.S. legislation on the supply of Conflict Minerals.
- Do not knowingly procure specified products and components that contain metals that originate from facilities in the “Conflict Region” that are not certified as conflict free.
- Ensure compliance with these requirements and ask our suppliers to undertake audits by reasonable “inquiry or “due diligence with their supply chains to assure that specified metals are only being sourced from:
 - Mines and smelters outside the “Conflict Region” or
 - Mines and smelters that have been certified by an independent third party as Conflict Free” if sourced within the “Conflict Region”.



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QHSUK will use every means practicable to ensure that our suppliers that supply us with products and components that contain gold, tin, tantalum, and tungsten, have obtained evidence that the materials used originate from outside the “Conflict Region or from mines or smelters that have been certified as “Conflict Free” by a third party. The aim being to ensure that we only procure products and components that are “Conflict Free”.

If we discover the use of these minerals are sourced from within the “Conflict Region” for products or components that are being supplied, we shall take appropriate action to resource to ensure our products are “Conflict Free”.

Contingency Plans

Where appropriate, suppliers / sub-contractors shall be requested to prepare and submit a contingency plan to ensure Quality and Delivery requirements are met in the event of the following situations occurring:

- Emergency situations (Fire, flood, environmental incident)
- Utility supply interruptions
- Labour shortages
- Key equipment failure
- I.T Failure
- Adverse trading situations
- Appropriate Insurance cover for the key points listed above.

Supplier Quality System Requirements

QHSUK requires all suppliers to acknowledge and retain total ownership for the quality of their products and to develop Quality Management Systems, which ensure that the requirements of the purchase order are fully met.

The development of these systems should provide for continuing improvement in product quality, leading to the attainment of zero defects, whilst also providing speedy and effective corrective action in the event of defective products being delivered to QHSUK.

This Supplier Development manual is based on the requirements of the ISO 9001:2015 Quality Management System. It is a requirement of QHSUK that suppliers are to be ISO 9001 approved. Suppliers are evaluated and selected on an individual merit basis for the product/service they supply. Non-ISO approved organisations will be expected to work towards an implementation of



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ISO 9001:2015, and during this interim implementation it is essential to demonstrate adequate management and controls of their processes that satisfies QHSUK UK's minimum requirements.

Quality Management System

The supplier shall establish and maintain a comprehensive documented quality system that provides a means of ensuring that products conform to specified requirements. This system shall control the issue of drawings, specifications, procedures etc. Provision shall be made for the control of obsolete copies and their subsequent archiving and disposition. The use of correction fluid is not permitted on any QHSUK related documentation. Any amendment shall be made by crossing out the error with a single line and initialling the change.

All records pertaining to quality shall be stored and maintained in a legible form for a minimum of 10 years. No records will be destroyed until authorised by QHSUK. Specific projects and/or regulatory bodies may require longer retention periods, and this will be notified in advance to the supplier.

Management Responsibility

The supplier shall make known a person to QHSUK, who will have the necessary authority and responsibility for product quality (Management Representative).

It is expected that the named person will provide evidence of the supplier's commitment to the development and implementation of the quality management system and continually improving its effectiveness.

Resource Management

The supplier shall determine and provide the resources needed to maintain the quality system and continually improve its effectiveness and enhance customer satisfaction by meeting QHSUK requirements.

Personnel performing work affecting product quality shall be competent based on appropriate education, training, skills and experience. This competence will be defined and quantified with appropriate evidence.

The supplier shall determine, provide and maintain the infrastructure needed to achieve conformity to product requirements.

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Operation

Orders or contracts shall be formally reviewed to ensure that the supplier has the technical, operational and logistical capabilities to meet the requirements. Any discrepancies or queries shall be resolved before the order or contract is accepted by the supplier.

Amendments to orders or contracts shall be formally reviewed. Records of contract review shall be maintained.

Design and Development

If Design activities are undertaken for QHSUK by the supplier, then design inputs and outputs shall be adequately specified (e.g. by relevant specifications). Formal documented reviews shall be held at appropriate stages of design. Designs shall be checked by verification (theoretical check) and validation (practical check). **All design changes shall be documented and approved by QHSUK authorised personnel before implementation.**

Purchasing

Suppliers shall not sub-contract any work awarded by QHSUK, which is within their scope, without prior consent from QHSUK.

The supplier should ensure that their subcontractors are evaluated and selected on their ability to meet specified requirements. A list of approved subcontractors shall be maintained. Purchasing documents shall clearly describe the relevant drawings including issue status and the quality requirements to be applied.

In any event 3rd party details and access for the purpose of inspection & review should be available to QHSUK and / Or QSA.

Supplier Quality Assurance Requirements

Applicable to all Purchase Orders

- All items delivered shall be manufactured in accordance with applicable industry standards for good workmanship and shall be fit for purpose, in all respects.
- Packaging shall be of a standard, to prevent damage and deterioration during shipment and storage.
- Individual boxes must not exceed 25kg in weight; anything above this weight must be palletised and secured accordingly.
- All suppliers shall ensure all work is carried out in a manner preventing Foreign Object Debris from contaminating the deliverables.



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Sample Submission and Approval Requirements

Initial Sample Inspection Report (ISIR)

Suppliers must submit a complete ISIR for all new or modified parts prior to the commencement of serial production. The ISIR must include dimensional results, material certifications, and any applicable test data. The report must be signed by a qualified quality representative from the supplier.

Production Part Approval Process (PPAP) – Level 2

Suppliers shall submit a PPAP Level 2 package, which includes:

- Part Submission Warrant (PSW)
- Product samples
- Dimensional results
- Material and performance test results
- Process flow diagram
- Control plan
- FMEA (Failure Mode and Effects Analysis)

Approval from QHSUK is mandatory before production shipments can begin.

Golden Samples

Suppliers must submit three (3) production-quality samples along with the ISIR and PPAP documentation. Upon approval, one sample will be retained by QHSUK as a golden sample for reference and comparison during future inspections. The golden sample must be clearly labeled with:

- Part number
- Revision level
- Date of submission
- Supplier name.

Re-submission Requirements

Any changes to design, materials, manufacturing location, or process must trigger a re-submission of ISIR, PPAP Level 2, and new golden samples for re-approval.



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Once the Initial Sample Inspection Report (ISIR) and golden samples have been approved by QHSUK, **suppliers are strictly prohibited from making any changes to the following without obtaining prior written consent from QHSUK:**

- Design specifications
- Materials or material sources
- Manufacturing location
- Production processes

Any unauthorized changes may result in disqualification of the supplier, rejection of delivered parts, and potential removal from the approved supplier list.

Certificate of Conformity

Each delivery of product shall be supported by appropriate Certificate of Conformity signed by a senior member of your organisation responsible for Quality Assurance / Inspection. Electronic signatures are acceptable, providing the name of the responsible official is included. Certificates of Conformity provided must include but not be limited to the following information:

- QHSUK Purchase Order number. Supplier's delivery note number.
- Drawing / Issue numbers and / or Specification / Issue numbers / Batch numbers.
- Reference to any relevant standards as applicable.
- A statement stating that the goods have been inspected and tested to drawings / specifications quoted in the order.
- The goods conform in all respects to the requirements of the Purchase Order and have been manufactured and released under the scope of your QMS approval.

Raw Material Certification of Conformity

Base metal material certification should be in accordance with BS EN 10204 type 3.1. All materials must be supported with traceable link through all stages of the supply chain back to the original source.

Material Safety Data Sheet

All potentially hazardous materials shall be accompanied with the relevant MSDS.

Acceptance Test Report

Test data to provide evidence of compliance with all acceptance test requirements as outlined in the applicable specifications. Test data shall be complete and shall cover all test and/or inspections performed and shall be traceable to the specific batch under test.



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Production and service provision

Any product supplied by QHSUK for incorporation into assemblies by the supplier, shall be suitably verified and controlled. If any customer (QHSUK UK) property is lost, damaged or otherwise found to be unsuitable for use, this shall be reported to QHSUK and records maintained.

The status of material and product shall be clearly identified by suitable means throughout product realisation.

The Supplier's quality control documents shall contain as a minimum the following information: To be able to demonstrate conformity of the product and that all process operations have been completed.

Accountability for all products (part quantities, split batches, non-conformances etc.)

Detail any differences between the actual product configuration and the agreed configuration.

Cross references to relative documents i.e. drawings, purchase order, specifications.

Maintain issue control status between the drawing and all manufacturing control documentation i.e. job cards, route cards, operator instructions.

Strict control over the traceability of product via batch numbers shall be always maintained. When a product is scrapped, the batch number shall under no circumstances be transferred to a substitute part. **Refer to E-S-TP-POL-01 Batch Number Policy**

The supplier must maintain product conformity during internal processing and delivery. This preservation shall include identification, handling, traceability, packaging, storage and protection.

Tooling Maintenance and Management Requirements

To ensure consistent product quality, all suppliers using dedicated tooling, including but not limited to CNC fixtures, stamping dies, die casting tools, and specialized key machinery, must implement and maintain a documented tooling management & maintenance program. The program shall include:



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Tooling Ownership and Identification

All QHSUK-owned tooling must be permanently and legibly identified.

A tooling register shall be maintained, clearly identifying location, condition, and responsible custodian.

Preventive Maintenance Program

Suppliers must develop and follow a preventative maintenance schedule for all production tooling.

Maintenance intervals shall be based on tool type, usage frequency, and criticality of function.

Maintenance activities must be logged and traceable, including dates, personnel involved, and scope of work.

Tool condition shall be inspected regularly to prevent wear-related defects and reduce unplanned downtime.

Tooling Condition Reporting

Suppliers shall notify QHSUK immediately of any tooling degradation, unexpected wear, or damage that may affect product quality or delivery.

Suppliers must not modify or repair QHSUK-owned tooling without written authorization.

Tooling Storage and Preservation

Tooling must be stored in a clean, secure, and protected environment to prevent corrosion, deformation, or accidental damage.

Environmental controls should be used as necessary (e.g., humidity control for steel tools).

Backup Tooling and Risk Mitigation

Where possible, suppliers shall have contingency plans in place to address tooling failure. This may include spare tooling, expedited refurbishment resources, or alternate processing capabilities.



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Tool Life Monitoring and End-of-Life Planning

Suppliers shall track cumulative usage or stroke counts for tools with finite life spans.

End-of-life risk must be communicated proactively with adequate time for QHSUK to plan refurbishment or replacement.

Tooling Transfer and Decommission

Tooling being returned to QHSUK or transferred to another facility must be cleaned, protected, and accompanied by a final maintenance and condition report.

Obsolete or decommissioned tools must be identified, segregated, and stored or disposed of in accordance with QHSUK direction

F.O.D (Foreign Object Damage/Debris)

Suppliers shall ensure work is accomplished in a manner preventing foreign objects or material in deliverable items. Further items with any open orifice shall be capped or plugged to prevent ingress of FOD during storage and shipping.

Manufacturing processes shall be defined by documented procedures. Acceptance criteria for quality shall be defined in a clear and practical manner. Where processes cannot be verified by subsequent inspection or testing, such processes shall be performed by qualified operators or have suitable process control parameters established. All process controls shall be submitted to QHSUK when requested, and any changes to the process shall be advised to QHSUK prior to making any such change.

Control of monitoring and measuring devices

All measuring and test equipment used to demonstrate conformance of product shall be calibrated with reference to international or national standards. Such equipment shall be clearly marked with identification of its calibration status, including expiry date. Records of calibrated equipment shall be maintained. When equipment is found to be out of calibration, actions shall be taken to identify and rectify any affected product including product already despatched.



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Measurement, Analysis and Improvement

Monitoring and Measurement of product

The supplier shall monitor and measure the characteristics of the product to verify that the product requirements have been met. This shall be carried out at appropriate stages of the product realisation process in accordance with the planned arrangements.

Prevention of Counterfeit Parts

The supplier shall plan, implement and control processes, as appropriate to their organisation and the product, for the prevention of counterfeit or suspect counterfeit parts use and their inclusion in products delivered to QHSUK. This must also include as necessary, a parts obsolescence monitoring programme; the supplier will advise QHSUK in advance of a final buy etc. **A counterfeit parts awareness presentation is available as a training aid in implementing this process.**

Component Obsolescence Management

The Supplier shall develop, document and implement a component management process that addresses all aspects of the product life cycle from design through service, including component selection, application, and standardization and obsolescence management. Supplier's program shall address the following issues:

- If a component becomes obsolete or otherwise unprocurable, the Supplier's obsolescence management process shall include provisions for alternate parts, end-of-life buys, and/or upgraded parts.
- When alternate parts are being considered, parts shall be selected from alternate sources, which are form, fit, and function replacements and meet the same quality, reliability, and selection criteria as the original parts.

When end-of-life buys are being considered, the Supplier shall formally notify QHSUK of its intent and the lifetime buy requirement shall be negotiated and approved by QHSUK.

When alternate parts cannot meet form-fit-function requirements or when upgraded parts are being considered, the Supplier shall formally notify QHSUK of its intent and shall provide a detailed engineering analysis of the re-screening or testing requirements, which will provide



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form-fit-function equivalency to the original parts. Note that form-fit-function alternate parts that require modification to a printed wiring board layout also require QHSUK approval.

The Supplier's analysis report to QHSUK for upgraded parts shall substantially respond to the following questions:

- Reason for change
- Will the component be substituted into a critical function?
- List equipment in which new component will be used, and the quantities.
- Existing component part number
- Existing component quality assurance process
- New component Part Number
- New component quality assurance process
- What is impact of the substitution on equipment reliability and safety? (Report analysis results)
- Briefly describe the analysis and results that show the new component will be reliable in this application e.g., in-service data, etc.

In the case of out-of-production equipment where obsolescence issues render the equipment to be unsupportable, QHSUK shall be notified of the circumstances that caused the product to be unsupportable. QHSUK and the Supplier will work together to provide timely, accurate, standardized communications to notify customers of an impending product obsolescence and/or discontinuance.

Notifications/ Disclosures

The Supplier's system shall provide for timely reporting of nonconformities that may affect product already delivered, including any safety related concerns.

Notification to QHSUK shall include a clear description of the discrepancy, identification of all suspect parts (to include mfg. dates, serial numbers, quantities, etc.) and material affected by the deficiency, date(s) delivered, any information relating to the Root Cause/Corrective Action (RCCA) steps initiated to address the defective condition, and preventive measures taken to preclude recurrence of the process failure.



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Control of non-conforming product

The supplier shall ensure that products, which do not conform to product requirement, are identified and controlled to prevent their unintended use or delivery. The controls and related responsibilities and authorities for dealing with non-conforming product shall be defined in a documented procedure. Nonconforming products that are received by QHSUK will be processed by our rejection procedure and the supplier may be liable for non-conformance administration costs. The supplier accepts the principle of such reasonable administration costs and the processing of debit notes where Nonconforming goods are identified after invoices have been paid.

Concession Application

Suppliers must submit a concession request (including a full RCCA), prior to shipping non-conforming material to QHSUK. The request shall be for non-conforming material deemed fit for use, that however does not meet the drawing and/or stated specifications. The supplier shall properly identify non-conforming material accepted by the concession.

Repeated applications for the same non-conformance or re-use of existing Concession will not be accepted and a corrective action / preventative action will be required for every concession granted. Please be aware Concessions will affect your vendor score.

All concessions will be identified against a specific purchase order or designated batch within QHSUK.

Inspection Criteria

QHSUK expect that procured product from external providers meets the requirements of the order and drawing. QHSUK operate a sample inspection of incoming product to ensure confirm conformance. In the event of QHSUK finding non-conforming product, the product will be quarantined, and the supplier will be notified. Based on business requirements, options will be discussed as to whether the goods are returned / replaced / 100% inspected. Costs associated with the management of non-conformities will be sought from the supplier.

Root Cause and Corrective Action

QHSUK maintains a comprehensive system for the recording, monitoring and measurement of corrective actions. This system applies to both internal and externally generated concerns. In the event of a non-conformance, the supplier will be required to complete a Corrective Action Report. Root cause analysis shall be conducted to determine the cause of the non-conformance.



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The supplier shall complete the containment actions within 48 hours of receipt of issue and a target of 30 working days for complete closure.

Supplier shall provide documented evidence of actions to prevent re-occurrence; this should be documented using an agreed format with QHSUK. Please be aware that failing to adhere to the targets will affect your vendor score.

To ensure effective and structured problem-solving, all suppliers are required to utilize the following Root Cause Analysis (RCA) methodologies when submitting a Corrective Action Report (CAR):

G8D (Global 8 Disciplines) – A team-oriented, structured problem-solving methodology that includes:

- D1: Establish the team
- D2: Describe the problem
- D3: Implement and verify interim containment actions
- D4: Identify root causes
- D5: Choose and verify permanent corrective actions
- D6: Implement permanent corrective actions
- D7: Prevent recurrence
- D8: Congratulate the team

5 Why's Analysis – A simple but powerful tool for identifying the root cause by asking 'Why?' iteratively until the fundamental cause is determined.

Fishbone Diagram (Ishikawa) – A visual tool to systematically identify and present all possible causes of a problem, categorized under common headings such as Methods, Machines, Materials, Measurements, People, and Environment.

All RCA documentation must be submitted along with the CAR and approved by QHSUK. Failure to use these methodologies may result in rejection of the corrective action and further escalation. **Templates can be provided upon request.**



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Supplier Assessment

It is a requirement of QHSUK that suppliers must conform to both of the following controls.

- The suppliers Quality System will have been assessed and approved by QHSUK's Quality Department
- The supplier may be registered as a BS EN ISO 9001 approved organisation.(this may be part of an ongoing transitional plan)

QHSUK reserves the right to review / revoke an approval at any time and thus terminate business dealings.

Supplier Audits

On site audits will be conducted as part of the initial introduction as a new supplier. Notification of any planned audits will be given well in advance.

As part of QHSUK's Supplier Development programme and supplier control process, all Approved Suppliers will be subject to an ongoing Supplier Verification Audit programme. Selected Suppliers will be audited as necessary to verify product conformance. These audits may be made up of a cross-functional team consisting of procurement, quality and production staff. The purpose of a cross-functional team is to substantiate the effectiveness of the supplier's administration, manufacturing and quality system.

In the event of products being subject to a harmonised performance standards, audits will also be carried out by the nominated independent certification company (BSI / Element / Warrington as examples), this will be based but not exclusively around the requirements of ISO9001 protocols. This is to ensure that QSHUK have satisfactory evidence that the supplier shall achieve required controls in relation to the specific product standard and will also maintain quality, specification control, testing and inspection procedures to enable the Supplier to consistently comply with its obligations under the specific product standard requirements, as well as the obligations around the purchase Order and this Agreement and, at the request of QSHUK, the Supplier shall supply full details in connection with such Procedures or with any planned changes in such Procedures.



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Approved Supplier List

QHSUK & QSA operates a controlled “Approved Supplier List” which consists of all suppliers approved to supply products/services to QHSUK.

Vendor Management System (VMS)

QHSUK operates a VMS to monitor and measure the performance of all Manufacturing Resource Suppliers. The process is an ongoing, comprehensive supplier monitoring and feedback procedure that allows QHSUK to communicate with its supplier base, recognising both high performance suppliers, as well as low performing suppliers.

Any supplier that does not maintain acceptable performance requirements in any of the above established measurable will be invited to present to QHSUK’s Quality and Purchasing functions, an action plan stating the supplier’s intentions to show significant improvement towards meeting the required measurable within an agreed time.

QHSUK will provide all the necessary assistance and resources to resolve all supplier related issues. However, repeated failure to comply with QHSUK requirements will inevitably result in the development of a resourcing plan for all products/services provided to QHSUK by the delinquent supplier.

Forms / Documents

Examples of referenced forms are available on request.

Title	Reference No
Non-Disclosure Agreement	
Terms and Conditions	
Batch Number Policy	E-S-TP-POL-01
RCCA (8D, 5 Why) Template	AEZ-QA-FO-001



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Revision History

Date	Revision	Change
June 2025	001	Initial Release



供應商開發手冊

EZ-VS-PU-PR-02 修訂版 001



名	EZ-VS-PU-PR-02 供應商開發手冊		
校訂	001		
日期	2025 年 6 月	審查日期	2026 年 6 月
批准單位	史蒂夫·霍爾特	作者	J·耶茨

序

為了在當今的全球市場競爭，Quanex Hardware Solutions UK 要求產品和服務必須具有高品質並按時交付，並且越來越多地在較短的交貨時間內以成本交付。

為了使Quanex Hardware Solutions UK取得成功並滿足客戶的需求，我們必須制定一個鼓勵、支援和確保我們的供應商滿足品質期望的流程。

為確保這一點，我們的供應商所扮演的角色對於我們未來的成功至關重要，我們打算讓供應商作為合作夥伴參與我們的計劃。

本手冊的目的是定義我們將使用和期望我們的供應商使用的基本系統要求，以確保我們對產品和服務品質的共同責任得到理解和實施。

我們期待您作為我們的合作夥伴的支持，並相信通過共同努力，我們可以發展我們的供應鏈，造福所有人。

喬迪·耶茨
質量主管
QHSUK



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介绍

為了使Quanex Hardware Solutions UK（QHSUK）在競爭激烈的全球市場中取得成功，我們必須與供應商建立密切開放的關係，共同努力支持持續改進的環境。市場對經濟和品質的要求日益嚴格和苛刻，迫使我們了解並不斷改善我們的供應商基礎。

QHSUK UK 的目標是發展和擴大我們現有的全球基礎，成為我們所選市場領域的世界領導者。為確保我們實現這一目標，QHSUK 制定了具體策略，包括：

- 與較少供應商的長期合作關係。
- 製造过程，工程、採購和品質人員與我們的供應商之間的密切互動。
- 部署先進的產品質量計劃。
- 確保符合市場特定要求，例如 BS EN ISO 9001: 2015 以及其他客戶和監管標準。

它還將用作發展 QHSUK 與其當前批准的供應商群之間現有關係的標準。它適用於所有向 QHSUK 設施提供製造材料（e.g. raw材料、組件、組件）或加工服務（例如電鍍、熱處理、無損檢測等）的供應商：

ERA Home Security 有限公司 英勇之路 伍爾弗漢普頓 西米德蘭茲郡 WV9 5GB www.erahomesecurity.com info@erahomesecurity.com	動物園五金有限公司 杜克斯大道， 金莫爾公園北， 卡萊爾 CA6 4SH www.zoohardware.co.uk sales@zoohardware.co.uk
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請記住，如果對 QHSUK 的任何要求有任何疑問，則必須在合同審查階段進行聯繫。

可持續性

支持 QHSUK 實現其可持續發展目標
為什麼它對 QHSUK 很重要。

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可持續發展是 QHSUK 整體戰略的核心，對其客戶和投資者都很重要。集團的雄心壯志和目標在其 2030 年可持續發展路線圖中列出，涵蓋可持續運營、可持續文化和可持續解決方案。2023 年，QHSUK 的溫室氣體（GHG）減排目標均通過科學基礎減量目標倡議組織（SBTi）的驗證，包括其營運範圍 1 和 2 排放量以及外購商品和服務的範圍 3 排放量，後者佔 QHSUK 價值鏈碳足跡的 76%。QHSUK 供應商在支持集團實現減碳、包裝和消除有害物質的目標方面發揮關鍵作用。




QHSUK 與供應商相關的可持續性目標

QHSUK 為自己設定了以下可持續發展目標：







- 一. 到 2026 年底，其產品實現 100% 可持續性包裝。
- 二. 到 2026 年，從其產品和供應鏈流程中消除優先有害物質（六價鉻、鉛 [Pb] 和 PFA）。
- 三. 到 2030 年，範圍 1 和範圍 2 的排放量比 2019 年基準減少 46.2%，符合 1.5oC 的軌跡。
- 四. 到 2030 年，將採購原材料和產品的範圍 3 溫室氣體絕對排放量減少 27.5%（與 2019 年基準相比），與遠低於 2oC 的軌跡一致。

供應商應在為實現這些目標做出貢獻方面發揮自己的作用，並在自己的組織中複製類似水平的雄心壯志。低碳材料涵蓋用於 QHSUK 產品的原材料和組件，例如鋁、鋼、鋅、聚合物、黃銅、電氣設備。

可持續性發展期望

	我們對供應商的期望：	旗
5.1 可持續性包裝和消除一次性塑膠	5.1.1 與 QHSUK 合作並提供計劃，規定供應商在 2026 年之前從供應給 QHSUK 的產品包裝中消除一次性塑膠的方法和時間表。應優先通過重新設計包裝或用可持續來源的木材、紙板或紙張替代品替換來完全擺脫塑料包裝。	
	5.1.2 如無法淘汰即棄塑膠包裝，則可使用回收成分至少為 30% 的塑膠（消費後廢棄物，而非生產後廢物），但須經 QHSUK 批准。必須提供為尋找一次性包裝替代品而採取的步驟的證據才能申請此豁免。	
5.2 優先有害物質（CrVI、Pb、PFA）	5.2.1 如果您的營運、流程或供應鏈中使用六價鉻（CrVI），請與 QHSUK 合作，提供您的計劃，以制定消除使用這種有害物質的方法和時間表。	

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	5.2.2 如貴公司在營運或供應予 QHSUK 的產品中使用銅合金（黃銅）或其他含鉛化合物，請確認鉛含量百分比，以及您計劃盡可能限制鉛的使用，例如無鉛銅合金或以替代（無鉛）材料取代銅合金。	
	5.3.3. 如果向 QHSUK 提供的產品、組件或材料中提供全氟烷基和多氟烷基（PFA），請與 QHSUK 合作並提供計劃，列出您消除/去除這些物質的方法。	
5.3 營運溫室氣體減排量	5.3.1 實現自身直接業務脫碳，並制定雄心勃勃的目標，並計劃在 2030 年之前大幅減少範圍 1 和範圍 2 的絕對排放量。這些計劃應包括但不限於對能源效率項目的投資、經過認證的 100% 可再生電力供應合同、太陽能等可再生能源項目和其他低碳技術。	
5.4.來源低碳材料	5.4.1 計算供應給 QHSUK 的原材料、產品或組件的碳足跡。	
	5.4.2 提供供應給 QHSUK 的原材料、產品或組件的碳足跡支持證據，例如回收含量百分比（消費後）、記錄在案的供應商聲明（詳細說明公斤二氧化碳當量）或由行業協會獨立驗證的正式環境產品聲明（EPD）通用產品類別或特定產品的定制評估。	
	5.4.3 與 QHSUK 合作，提供計劃，列出供應商在 2030 年之前大幅減少供應給 QHSUK 的原材料、產品或組件的碳含量的方法和時間表。這些計劃應包括用低碳材料取代高碳材料（例如鋼與鋁）、減少材料用量（產品輕量化）或改用高含量或回收成分（例如碳密集型材料，如鋁）。	

QHSUK 供應商使命

我們共同受到啟發，建立一流的價值鏈合作夥伴關係，讓客戶滿意。
為了應對不斷變化的環境，我們需要改進和實施新的能力。

- 單一工作方式，在 QHSUK 內部和供應商之間建立清晰度
- 定義關鍵產品功能並將其傳達給供應商。
- 採購零件的品質期望是明確的，並且基於風險。
- 供應商的能力和績效被衡量、追蹤和可見。
- “第一次就對，每次都對”成為常態。



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主要角色和職責

QHSUK 在許多職能領域與供應商建立了牢固的合作夥伴關係，以確保並保持對質量的關注。QHSUK 了解我們的業務部門在性質上是不同的，並且在某些情況下，根據它們所代表的業務或市場具有獨特的角色和責任。在合夥企業中，定義 QHSUK 內的角色和職責非常重要。主要介面角色包括：

供應商

作為 QHSUK 供應商，您的組織負責開發和維護品質管理系統，以確保一致的績效，以提供優質的零件、產品和服務。這包括供應商有責任確保所提供的零件、產品或服務遵守合約遵守 QHSUK 規範。這包括遵守當地和國家法規/法律。

採購

採購是將採購與技術聯繫起來、調整 QHSUK 產品和供應商技術路線圖以及管理採購組件的主要整合點。採購部門根據預先定義的標準協調零件規格與潛在供應商的選擇。選定的供應商必須符合 QHSUK 設定的嚴格品質要求。

供應商品質

QSA（Quanex Sourcing Asia）確保供應商的品質管理系統（QMS）符合適用的 QHSUK 品質和法規要求。有適當的流程來確保供應商的初步選擇、評估、批准和監控。供應商品質將利用 APQP（高級產品品質規劃）來確保供應鏈內有適當的風險緩解水平。供應商品質利用供應商品質改進計劃和供應商改進流程。

一般要求

以下是我們希望供應商滿足的強制性要求。

訪問權

供應商應為 QHSUK UK、我們的客戶和監管機構提供進入其場所和設施的通道，以便在產品、流程和業務問題上進行合作。

組織變更通知

供應商組織變更可能影響品質和/或財務，應提前通知 QHSUK。這些變更可能包括公司所有權、公司名稱、製造地點、品質認證、操作技術或流程、材料或品質控制協議、產品標記或認證、一般流程或製造方法以及檢驗技術的重大變更。



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適用性

所有供應商均應完全遵守本手冊的規定要求。QHSUK 可酌情決定是否授予對某些元素的個人豁免。

本手冊任何元素的豁免申請應以書面形式提出，並提交給 QHSUK，QHSUK 將在內部處理相關職能的請求。

採購單要求

供應商應遵守所有採購訂單條款和條件以及規定的特殊說明。採購單是控制文件，將傳達與本手冊、圖紙、工程規範、產品規格或供應商授權的其他要求中規定的要求的任何偏差。在開始任何工作之前，必須突出顯示任何疑問並報告給 QHSUK。

資訊保護

供應商從QHSUK收到的任何信息都必須保密，未經QHSUK事先書面同意，不得向任何第三方披露。專有資訊可以包括但不限於所有版本的電子數據、圖紙和文件、工具和材料。在任何情況下，供應商均不得就商定的業務交易直接與QHSUK UK的客戶接觸。從 QHSUK 供應商收到的任何信息都將以相同的方式處理。這種資訊保護包含在 QHSUK 保密協議中。供應商有責任通過所有 QHSUK 合同的供應鏈流向動所有/任何保密協議。所有保密協議每年都會審查一次，每五年重新簽署一次。

行為準則

本準則適用於 QHSUK UK 的所有供應商群，並概述了供應商、其員工和分包商在與 QHSUK 的關係中以最高商業誠信標準運營的基本需求。

QHSUK 希望與所有供應商合作，以確保正確理解和遵守本行為準則。人們認識到，QHSUK UK 供應基地運營所在的國家/地區存在不同的法律和文化環境，但本行為準則規定了所有供應商在與 QHSUK 開展業務時應滿足的最低要求。

供應商必須確保所有員工都意識到他們對產品合規性、產品安全和道德行為重要性的貢獻。

供應商必須遵守與各自營運國家/地區相關的所有國家和其他適用法律法規。這包括確保與 QHSUK 的業務交易得到充分報告/記錄，確保其員工了解並接受適當的培訓以滿足要求。



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QHSUK 希望其供應商為其員工、訪客、承包商、客戶以及可能受其活動影響的社區人士的健康、安全和福利做出適當的準備。

供應商應與 QHSUK 進行專業接觸，避免任何利益衝突。此要求同樣適用於業務關係和個人活動。

衝突材料政策

QHSUK 支持結束在位於剛果民主共和國（DRC）東部及周邊國家的被稱為“衝突地區”的地點開採某些礦物時的暴力和侵犯人權行為。因此，美國證券交易委員會（SEC）根據 2010 年《多德-弗蘭克華爾街改革和消費者保護法案》的指示，通過了最終規則來實施與衝突礦產相關的報告和披露要求。該規則要求向 SEC 提交某些報告的製造商披露他們製造或承包製造的產品含有對這些產品的功能或生產“必要”的衝突礦產。

定義或“衝突礦產”是指金、錫、鉭和鎢，無論它們的來源、加工或銷售在哪裡。我們支持這些要求，以進一步實現結束剛果民主共和國（DRC）和周邊國家暴力衝突的人道主義目標，該目標的部分資金來自衝突礦產的開採和貿易。

我們的承諾：

- 支持美國衝突礦產供應立法的宗旨和目標。
- 不要故意採購含有來自「衝突地區」設施且未經認證為無衝突的金屬的特定產品和組件。
- 確保遵守這些要求，並要求我們的供應商透過對其供應鏈進行合理的「詢問」或「盡職調查」進行審核，以確保特定金屬僅來自：
 - 「衝突地區」以外的礦山和冶煉廠或
 - 經獨立第三方認證為無衝突的礦山和冶煉廠，如果來源於「衝突地區」。

QHSUK將使用一切可行的方法，確保向我們提供含有金、錫、鉭和鎢的產品和組件的供應商已獲得證據，證明所使用的材料來自“衝突地區”以外或來自經第三方認證為“無衝突”的礦山或冶煉廠。目的是確保我們只採購「無衝突」的產品和組件。

如果我們發現這些礦物來自「衝突地區」內的產品或組件，我們將採取適當的行動來獲取資源，以確保我們的產品「無衝突」。

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應變計劃

在適當情況下，應要求供應商/分包商準備並提交應急計劃，以確保在發生以下情況時滿足質量和交付要求：

- 緊急情況（火災、洪水、環境事故）
- 公用事業供應中斷
- 勞動力短缺
- 關鍵設備故障
- IT失敗
- 不利的交易情況
- 針對上述要點的適當保險。

供應商品質系統要求

QHSUK 要求所有供應商承認並保留其產品品質的完全所有權，並制定品質管理系統，以確保完全滿足採購訂單的要求。

這些系統的開發應持續提高產品質量，從而實現零缺陷，同時在有缺陷的產品交付給 QHSUK 時提供快速有效的糾正措施。

本供應商開發手冊基於 ISO 9001: 2015 質量管理體系的要求，QHSUK 要求供應商必須獲得 ISO 9001 認證。供應商根據其提供的產品/服務的個人優點進行評估和選擇。未經 ISO 批准的組織將努力實施 ISO 9001: 2015，在此臨時實施期間，必須證明其流程的充分管理和控制，以滿足 QHSUK UK 的最低要求。

品質管理系統

供應商應建立並維護一個全面的記錄品質系統，提供確保產品符合特定要求的方法。本制度應控制圖紙、規格、程序等的發行。應規定控制過時的副本及其隨後的存檔和處置。任何 QHSUK 相關文件均不允許使用修正液。任何修改均應通過用一行劃掉錯誤並縮寫更改來進行。

所有與品質有關的記錄均應以清晰的形式儲存和保存至少 10 年。在獲得 QHSUK 授權之前，任何記錄都不會被銷毀。特定項目和/或監管機構可能需要更長的保留期，這將提前通知供應商。

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管理責任

供應商應向QHSUK提供對產品品質具有必要權限和責任的人員（管理代表）。

預計被點名人士將提供證據，證明供應商致力於制定和實施質量管理體系並不斷提高其有效性。

資源管理

供應商應確定並提供維持品質系統所需的資源，並透過滿足 QHSUK 要求來持續改善其有效性並提高客戶滿意度。

從事影響產品品質之工作之人員，應具備適當之教育、訓練、技能及經驗。這種能力將通過適當的證據進行定義和量化。

供應商應確定、提供和維護符合產品要求所需的基礎設施。

操作

訂單或合約應經過正式審查，以確保供應商具備滿足要求的技術、營運和物流能力。任何差異或疑問應在供應商接受訂單或合約之前解決。

命令或契約之變更，應經正式審查。應保存合同審查記錄。

設計與開發

如果供應商為 QHSUK 進行設計活動，則應充分規定設計投入和輸出（例如透過相關規範）。應在設計的適當階段進行正式的文件審查。設計應透過驗證（理論檢查）和驗證（實踐檢查）進行檢查。所有設計變更在實施前均應記錄並由 QHSUK 授權人員批准。

採購

未經QHSUK事先同意，供應商不得將QHSUK授予的任何在其範圍內的工作分包。

供應商應確保根據其滿足特定要求的能力進行評估和選擇。應保留一份經批准的分包商名單。採購文件應清楚說明相關圖紙，包括發行狀況及應適用之品質要求。

在任何情況下，QHSUK 和/或 QSA 都應提供第三方詳細信息和用於檢查和審查目的的訪問權限。

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供應商品質保證要求

適用於所有採購訂單

- 所有交付的物品均應按照適用的行業標準製造，以確保工藝良好，並且在所有方面都應符合用途。
- 包裝應符合標準，以防止在運輸和儲存過程中損壞和變質。
- 單個箱子的重量不得超過 25 公斤;任何超過此重量的東西都必須相應地托盤和固定。
- 所有供應商應確保所有工作都以防止異物碎片污染可交付成果的方式進行。

樣品提交和批准要求

初始樣品檢驗報告 (ISIR)

供應商必須在開始批量生產之前提交所有新零件或修改零件的完整 ISIR。ISIR 必須包括尺寸結果、材料認證和任何適用的測試數據。該報告必須由供應商合格的質量代表簽署。

生產零件審批流程 (PPAP) – 2 級

供應商應提交 PPAP 2 級包，其中包括：- 零件提交保證書 (PSW)

- 產品樣品 - 尺寸結果 - 材料和性能測試結果 - 工藝流程圖 - 控制計劃 - FMEA (故障模式和影響分析)

在開始生產運輸之前，必須獲得 QHSUK 的批准。

金印章封存樣品 樣品

供應商必須提交三 (3) 個生產品質樣品以及 ISIR 和 PPAP 文件。經批准後，QHSUK 將保留一個樣本作為 金印章封存樣品 樣本，以便在日後檢查時參考和比較。金印章封存樣品 樣品必須清楚地標明：- 零件編號 - 修訂等級 - 提交日期 - 供應商名稱。

重新提交要求

對設計、材料、製造地點或工藝的任何更改都必須觸發重新提交 ISIR、PPAP 2 級和新的金印章封存樣品 樣品以供重新批准。

一旦初步樣品檢驗報告 (ISIR) 和 金印章封存樣品 樣品獲得 QHSUK 的批准，未經 **QHSUK 事先書面同意，嚴禁供應商對以下內容進行任何更改：**

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- 設計規範 - 材料或材料來源 - 製造地點 - 生產流程

任何未經授權的更改都可能導致供應商被取消資格、拒絕交付的零件，並可能從批准的供應商名單中刪除。

合格證書

每次交付產品時，均須附有由貴機構負責品質保證/檢驗的高級成員簽署的適當合格證書。電子簽名是可以接受的，前提是包括負責官員的姓名。提供的合格證書必須包括但不限於以下資訊：

- QHSUK 採購訂單號碼。供應商的送貨單號碼。
- 圖紙/發貨號和/或規格/發號/批號。
- 參考任何相關標準（如適用）。
- 聲明貨物已按照訂單中引用的圖紙/規格進行檢查和測試。
- 貨物在所有方面都符合採購訂單的要求，並且是在您的質量管理體系批准範圍內製造和發布的。

原料合格認證

賤金屬材料認證應符合 BS EN 10204 3.1 型。所有材料都必須通過供應鏈的所有階段的可追溯鏈接支持，回到原始來源。

材料安全數據表

所有潛在危險物質均應附有相關 MSDS。

驗收測試報告

測試數據，以提供符合適用規範中概述的所有驗收測試要求的證據。測試數據應完整，應涵蓋所有已執行的測試和/或檢查，並且應可追溯到被測的特定批次。

生產和服務提供

QHSUK 提供的任何產品，供供應商納入組件，均應經過適當的驗證和控制。如果任何客戶（QHSUK UK）財產丟失、損壞或以其他方式發現不適合使用，則應向 QHSUK 報告並保存記錄。

在整個產品實現過程中，應通過適當的方式清楚地識別材料和產品的狀態。

供應商的品質控制文件至少應包含以下資訊：

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能夠證明產品的一致性並且所有工藝操作都已完成。

對所有產品（零件數量、分批、不合格項等）負責

詳細說明實際產品組態與商定組態之間的任何差異。

相關文件的交叉引用，即圖紙、採購訂單、規格。

維護圖紙和所有製造控制文件（即作業卡、路線卡、操作員說明）之間的問題控制狀態。

應始終嚴格控制產品通過批號的可追溯性。產品報廢時，批號在任何情況下均不得轉移到替代零件。請參閱**E-S-TP-POL-01批號策略**

供應商必須在內部加工和交付過程中保持產品一致性。此保存應包括識別、處理、可追溯性、包裝、儲存和保護。

工具維護和管理要求

為了確保一致的產品質量，所有使用專用工具（包括但不限於數控夾具、沖壓模具、壓鑄工具和專用關鍵機械）的供應商都必須實施並維護記錄在案的工具管理和維護計劃。該計劃應包括：

工具所有權和識別

所有 QHSUK 擁有的工具都必須永久且清晰地識別。

應維護工具登記冊，明確標明位置、狀況和負責保管人。

預防性維護計劃

供應商必須為所有生產工具制定並遵循預防性維護計劃。

維護間隔應根據工具類型、使用頻率和功能的關鍵性而定。

維護活動必須記錄並可追溯，包括日期、涉及的人員和工作範圍。

應定期檢查工具狀況，以防止與磨損相關的缺陷並減少計劃外停機時間。



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工具狀況報告

供應商應立即通知 QHSUK 任何可能影響產品品質或交貨的工具退化、意外磨損或損壞。

未經書面授權，供應商不得修改或修理 QHSUK 擁有的工具。

工具儲存和保存

工具必須存放在清潔、安全和受保護的環境中，以防止腐蝕、變形或意外損壞。

應根據需要使用環境控制（例如，鋼製工具的濕度控制）。

備份工具和風險緩解

在可能的情況下，供應商應制定應急計劃來解決工具故障。這可能包括備用工具、加急翻新資源或替代處理能力。

刀具壽命監控和報廢規劃

供應商應追蹤具有有限使用壽命的工具的累積使用量或行程數。

必須主動傳達報廢風險，並有足夠的時間讓 QHSUK 計劃翻新或更換。

工具轉移和退役

退回 QHSUK 或轉移到其他設施的工具必須進行清潔、保護，並附有最終維護和狀況報告。

過時或退役的工具必須根據 QHSUK 指示進行識別、隔離、儲存或處置

F.O.D.的（異物損壞/碎屑）

供應商應確保以防止可交付物品中出現異物或材料的方式完成工作。其他具有任何開放孔口的物品應蓋上蓋子或堵塞，以防止 FOD 在儲存和運輸過程中進入。

製造過程應由文件化程序定義。品質驗收標準應以明確、實用的方式定義。後續檢查或測試無法驗證的製程，應由合格的操作人員執行或建立適當的製程控制參數。所有製程控制應在提出要求時提交給 QHSUK，並且在進行任何此類更改之前，應將流程的任何變更告知 QHSUK。

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監控和測量設備的控制

所有用於證明產品符合性的測量和測試設備均應參考國際或國家標準進行校準。此類設備應清楚地標明其校準狀態，包括有效期。應保存校準設備的記錄。當發現設備未校準時，應採取行動識別和糾正任何受影響的產品，包括已發送的产品。

測量、分析和改進

產品的監控和測量

供應商應監控和測量產品的特性，以驗證是否滿足產品要求。這應根據計劃安排在產品實現過程的適當階段進行。

防偽零件

供應商應根據其組織和產品規劃、實施和控制流程，以防止使用假冒或可疑的假冒零件並將其包含在交付給 QHSUK 的產品中。必要時，這還必須包括零件過時監測計劃；供應商將在最終購買等之前通知 QHSUK。仿冒零件意識演示可作為實施此過程的培訓輔助工具。

組件報廢管理

供應商應制定、記錄和實施組件管理流程，解決從設計到服務的產品生命週期的各個方面，包括組件選擇、應用以及標準化和報廢管理。供應商計畫應解決以下事項：

- 如果組件過時或無法採購，供應商的報廢管理流程應包括替代零件、報廢購買和/或升級零件的規定。
- 在考慮替代零件時，應從替代來源中選擇零件，這些來源是形狀、配合和功能替代品，並符合與原始零件相同的品質、可靠性和選擇標準。

當考慮報廢購買時，供應商應正式通知QHSUK其意圖，並應由QHSUK協商並批准終身購買要求。

當替代零件無法滿足外形配合功能要求或正在考慮升級零件時，供應商應正式通知 QHSUK 其意向，並應提供重新篩選或測試要求的詳細工程分析，這將提供與原始零件的外形配合功能等效性。請注意，需要修改印刷線路板佈局的外形貼合功能替代零件也需要 QHSUK 批准。

供應商向QHSUK提出升級零件的分析報告，應對以下問題做出實質回應：

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- 變更原因
- 該組件會被替換為關鍵功能嗎？
- 列出將使用新元件的設備和數量。
- 既有元件零件編號
- 現有組件質量保證流程
- 新元件零件編號
- 新組件質量保證流程
- 更換對設備可靠性和安全性有何影響？（報告分析結果）
- 簡要描述表明新組件在此應用中可靠的分析和結果，例如在役數據等。

如果設備停產，導致設備無法支持，則應將導致產品無法支持的情況通知 QHSUK。QHSUK 和供應商將共同努力提供及時、準確、標準化的溝通，以通知客戶即將出現的產品過時和/或停產。

通知/披露

供應商的系統應及時報告可能影響已交付產品的不合格項，包括任何與安全相關的問題。

向 QHSUK 發出的通知應包括對差異的明確描述、所有可疑零件的識別（包括製造日期、序號、數量等）和受缺陷影響的材料、交付日期、與為解決缺陷情況而啟動的根本原因/糾正措施（RCCA）步驟相關的任何信息，以及為防止工藝故障再次發生而採取的預防措施。

不合格品的控制

供應商應確保識別和控制不符合產品要求的產品，以防止其意外使用或交付。處理不合格產品的控制措施和相關責任和權限應在書面程序中定義。QHSUK 收到的不合格產品將按照我們的拒絕程序進行處理，供應商可能需要承擔不合格管理費用。供應商接受此類合理管理成本的原則，並在支付發票後識別出不合格貨物的情況下處理借方單。

優惠申請

供應商必須在將不合格材料運送到 QHSUK 之前提交特許權請求（包括完整的 RCCA）。該請求應針對被認為適合使用但不符合圖紙和/或規定規格的不合格材料。供應商應正確識別特許權接受的不合格材料。

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重複申請相同的不符合規定或重複使用現有特許權將不獲受理，並且每批批出一項特許權都需要採取糾正措施/預防措施。請注意，優惠將影響您的供應商分數。

所有優惠都將根據 QHSUK 內的特定採購訂單或指定批次進行識別。

檢驗標準

QHSUK 希望從外部供應商採購的產品符合訂單和圖紙的要求。QHSUK 對進貨產品進行抽樣檢查，以確保確認符合性。如QHSUK發現不合格產品，該產品將被隔離，並通知供應商。根據業務需求，將討論貨物是否退貨/換貨/100%檢驗的選項。與不合格品管理相關的費用將向供應商尋求。

根本原因和糾正措施

QHSUK 維護著一個全面的系統來記錄、監控和測量糾正措施。該系統適用於內部和外部產生的問題。如果出現不合格，供應商將被要求完成糾正措施報告。應進行根本原因分析以確定不合格的原因。供應商應在收到疫苗後 48 小時內完成遏制措施，目標是 30 個工作日才能完全關閉。

供應商應提供防止再次發生的行動的書面證據;這應該使用與 QHSUK 商定的格式進行記錄。請注意，不遵守目標將影響您的供應商分數。

為確保有效且結構化地解決問題，所有供應商在提交糾正措施報告（CAR）時都必須使用以下根本原因分析（RCA）方法：

G8D（全球 8 個學科）——一種以團隊為導向的結構化問題解決方法，包括：- D1：建立團隊 - D2：描述問題 - D3：實施和驗證臨時遏制措施 - D4：確定根本原因 - D5：選擇並驗證永久糾正措施 - D6：實施永久糾正措施 - D7：防止再次發生 - D8：祝賀團隊

5 為什麼分析——一個簡單但強大的工具，透過反覆詢問「為什麼」來確定根本原因，直到確定根本原因。

魚骨圖（石川）？——一種視覺化工具，用於系統地識別和呈現問題的所有可能原因，分類在方法、機器、材料、測量、人員和環境等常見標題下。

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所有 RCA 文件必須與 CAR 一起提交並經 QHSUK 批准。不使用這些方法可能會導致糾正措施被拒絕並進一步升級。 **可根據要求提供模板。**

供應商評估

QHSUK 的要求是供應商必須遵守以下兩項控制措施。

- 供應商的品質系統將經過 QHSUK 品質部門的評估和批准
- 供應商可以註冊為 BS EN ISO 9001 批准的組織。（這可能是正在進行的過渡計劃的一部分）

QHSUK 保留隨時審查/撤銷批准並終止業務往來的權利。

供應商審核

作為作為新供應商的初步介紹的一部分，將進行現場審核。任何計劃的審計都將提前通知。

作為 QHSUK 供應商發展計劃和供應商控制流程的一部分，所有批准的供應商都將接受持續的供應商驗證審核計劃。選定的供應商將在必要時接受審核，以驗證產品是否符合性。這些審核可能由採購、品質和生產人員組成的跨職能團隊組成。跨職能團隊的目的是證實供應商管理、製造和質量體系的有效性。

如果產品受到協調性能標準的約束，則指定的獨立認證公司（以 BSI / Element / Warrington 為例）也將進行審核，這將基於但不限於 ISO9001 協議的要求。這是為了確保 QSHUK 有令人滿意的證據證明供應商應實現與特定產品標準相關的所需控制，並將維護質量、規格控制、測試和檢驗程序，以使供應商能夠始終如一地遵守其在特定產品標準要求下的義務，以及圍繞採購訂單和本協議的義務，以及，應 QSHUK 的要求，供應商應提供與此類程序或此類程序的任何計劃變更相關的完整詳細資訊。

認可供應商名單

QHSUK 和 QSA 運營著一個受控的“批准供應商名單”，其中包括所有獲准向 QHSUK 提供產品/服務的供應商。



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供應商管理系統（VMS）

QHSUK 運營一個 VMS 來監控和衡量所有製造資源供應商的績效。該流程是一個持續、全面的供應商監控和反饋程序，使 QHSUK 能夠與其供應商群進行溝通，識別高績效供應商和低績效供應商。

任何在上述任何既定可衡量項目中未保持可接受的績效要求的供應商將被邀請向 QHSUK 的品質和採購職能部門提交一份行動計劃，說明供應商打算在約定的時間內表現出顯著改進，以滿足所需的可衡量標準。

QHSUK 將提供所有必要的協助和資源，以解決所有與供應商相關的問題。然而，如一再不遵從「優質水務及水利水行」的規定，將不可避免地導致拖欠供應商須為「水利水行」提供的所有產品/服務制訂資源計劃。

表格/文件

可應要求提供參考表格的範例。

名	參考編號
保密協議	
條款及細則	
批號政策	E-S-TP-POL-01
RCCA（8D，5 Why）模板	AEZ-QA-FO-001



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修訂歷史

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