

Supplier Quality Requirements

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DOCUMENT HISTORY

Issue No	Date	Brief Description
1	25/11/2013	<i>Original document, initial release</i>
2	19/12/2013	<i>Addition of clause 1.7</i>
3	13/02/2017	<i>Addition of clause 11, Change of originator job role & update of contents page</i>
4	06/12/2018	<i>Change of originator job role</i>
5	10/01/2022	RCCN 344. Format changes in line with current AQWSR documents. Change of creation, approval and sign off personnel. Updated logos. Updates to the following sections: 1, 2, 3, 4, 7, 8, 10, 11. Addition of sections 12, 13, 14.
6	29/11/2022	Changes to the document to capture the requirements of AS9100D clause 8.4.3
7	24/07/2025	Updates to the formatting of the document and updates against AS9100 requirements.

1. Scope and Applicability

- This manual applies to all external providers (suppliers, subcontractors, distributors) that deliver products or services impacting AQ Wiring Systems Rockford Ltd.'s quality, safety, and regulatory compliance.
- It includes direct suppliers and sub-tier providers involved in design, manufacturing, testing, special processes, and logistics.
- The requirements are applicable regardless of the supplier's location, industry, or business size, if the supplied product or service affects AQWSR's deliverables to aerospace, defense, or regulated industries.
- Suppliers must ensure that all sub-tier providers understand and comply with these requirements and that controls are maintained throughout the supply chain.

2. Supplier Approval and Qualification

- All suppliers must be evaluated and approved by AQ Wiring Systems Rockford Ltd before receiving any purchase orders. This includes submission of a Supplier Questionnaire, quality system certifications (e.g., ISO 9001, AS9100), and capability assessments.
- The supplier's approval status may be conditional or full, and is contingent upon risk level, product type, and criticality.
- AQWSR reserves the right to audit or inspect the supplier's facilities and processes as part of the qualification process.
- Suppliers must maintain their certification status and notify AQWSR immediately of any suspensions, revocations, or scope changes in their quality system certifications.
- Re-evaluation of approved suppliers will occur periodically, based on performance, audit results, and criticality of the products or services supplied.

3. Flow Down of Requirements

- Suppliers are responsible for communicating AQWSR's requirements, including technical drawings, specifications, and regulatory mandates, to their sub-tier suppliers.
- Sub-tier suppliers must be held to the same standards outlined in this manual, and compliance must be verified by the primary supplier.
- Suppliers must ensure the traceability of flowed-down requirements, maintaining records of what was provided, when, and to whom.
- When AQWSR's customers impose specific requirements, these must also be flowed down to all relevant sub-tiers without omission.

4. Product and Service Conformity

- Suppliers must ensure that all products and services provided meet applicable AQWSR purchase order terms, specifications, drawings, industry standards, and customer-specific requirements.
- Products shall be free of damage, defects, and contamination. Packaging must protect the product from damage during handling and transportation.
- All materials must be verified for correct revision status, part numbers, and condition prior to shipment.
- Where applicable, Certificates of Conformance (CoCs), inspection reports, and supporting documentation must accompany the shipment.
- For shelf-life controlled products, the remaining shelf life at time of delivery must be at least 80% of the total unless otherwise authorized in writing by AQWSR.

5. Special Processes Control

- Special processes include operations such as heat treatment, welding, plating, painting, anodizing, chemical processing, and any other process where the resulting output cannot be fully verified by subsequent inspection.
- Suppliers performing special processes must validate these processes through documented procedures, operator qualifications, and process controls.
- When applicable, suppliers shall maintain NADCAP accreditation or obtain specific written approval from AQWSR before conducting such processes.
- Records of special process qualifications, training records, and process monitoring results must be retained and made available upon request.

6. Key Characteristics and Critical Items

- Key characteristics are defined as features that have a significant impact on fit, function, performance, or compliance with regulatory requirements.
- Suppliers must identify key characteristics using drawings, specifications, or AQWSR directives and apply appropriate control methods such as Statistical Process Control (SPC) or 100% inspection.
- All deviations from control limits or tolerance thresholds must be investigated and corrective actions implemented to prevent recurrence.
- Documentation of inspection results, non-conformance analysis, and preventive measures must be maintained.

7. Change Management

- Suppliers shall not change any design, manufacturing process, test methods, materials, facility location, or suppliers without prior written approval from AQWSR.
- Engineering Change Requests (ECRs) must be submitted to AQWSR at least 30 calendar days before the intended implementation date.
- All proposed changes must include a complete description, reason for change, affected part numbers, proposed implementation date, and any supporting risk analysis or validation evidence.
- AQWSR will evaluate the change for potential impact and may require First Article Inspection (FAI), additional testing, or requalification before approving the change.
- No affected product shall be shipped until AQWSR has issued formal written approval for the change.

8. First Article Inspection (FAI)

- First Article Inspection (FAI) ensures the first production run of a new or revised part meets all design and manufacturing specifications.
- Suppliers must conduct FAI in accordance with AS9102 and submit the full FAIR package to AQWSR for approval prior to delivering production parts.
- FAI is required for new parts, changes to design, changes to manufacturing processes, and relocation of production facilities.
- The FAIR must include all dimensional results, material certifications, special process approvals, and test data as applicable.

9. Non-Conformance Management and Corrective Action

- Non-conforming products must be segregated, clearly labeled, and quarantined to prevent unintended shipment.
- If a supplier identifies or is notified of a non-conformance, they must initiate containment within one business day and provide a full 8D root cause analysis and corrective action plan within 10 business days.
- All concessions or requests to ship non-conforming material must be documented and approved in writing by AQWSR before shipment.
- AQWSR reserves the right to reject any non-conforming material, issue chargebacks for rework, and suspend supplier approval status for repeated or critical issues.
- Supplier Action Required: Suppliers must respond using 8D format with strict adherence to the stated response times.

Non-conforming products may not be shipped without written concession.

Suppliers must follow the 8D process with specified timelines for containment and corrective actions.

Event Occurs	
Problem notification and submission of component to supplier by Company	Starting Point
Formal acknowledgement by supplier that reported problem has been received	1 Day
Receipt of samples at supplier factory	2 Days
Initial supplier problem verification complete and communicated	3 Days
Interim containment plan communicated to Company	5 Days
Supplier failure or problem analysis completed, and results communicated	9 Days
Supplier corrective action plan communicated	10 Days
Supplier corrective and preventive action implemented and verified	As per plan

10. Audits and Right of Access

- AQ Wiring Systems Rockford Ltd, its customers, and regulatory authorities reserve the right to perform audits of the supplier's quality system, processes, and facilities with reasonable notice.
- Audit types include system audits, process audits, and product audits, and may be triggered by routine scheduling, poor performance indicators, or customer/regulatory requests.
- Suppliers must also enable AQWSR to access their sub-tier suppliers if deemed necessary for verification or investigation purposes.
- Audit findings will be discussed during the closing meeting and a formal report will be issued. Suppliers are expected to respond with corrective actions within specified timelines.
- All audit results are confidential unless otherwise agreed upon with the supplier.

11. Traceability and Counterfeit Prevention

- Suppliers must ensure complete traceability of components, materials, and sub-assemblies from origin to delivery. This includes linking back to the Original Equipment Manufacturer (OEM) or authorized distributor.
- Labels and documentation must clearly identify batch/lot numbers, date codes, part numbers, and trace codes.
- Traceability must be maintained even if production lots are split, re-batched, or repackaged, and sub-lots must be distinctly traceable and not mixed.
- Counterfeit part prevention requires documented procedures to verify the authenticity of all products supplied. Suppliers must only source materials from approved and reputable sources.

- Suspected counterfeit products must be reported to AQWSR immediately and isolated to prevent unintended use or shipment.

<u>Category/Type</u>	<u>Traceability Requirements</u>
Raw Material	Lot traceable to manufacturer's part no, lot no, date code with Certified Mill Test Report or Material Test Report.
Manufactured Parts	Traceability shall be maintained for all product throughout production from raw material to finished product (including product quantities, split orders, nonconforming product etc.). Raw material used shall be Lot traceable to manufacturers part no, lot no, date code with Certified Mill Test Report or Material Test Report. Requirements specified for COTS; MOTS & Mechanical/Electrical parts also apply where applicable.
Commercial of the Shelf (COTS)	Traceability through supply chain to Original Equipment Manufacturer (OEM).
Modified of the Shelf (MOTS)	Traceability shall be maintained for all product modifications throughout production from material to finished product (including product quantities, split orders, nonconforming product etc.). The originating COTS item(s) shall have Traceability through supply chain to Original Equipment Manufacturer (OEM). Requirements specified for Raw Material & Mechanical/Electrical parts also apply where applicable for item modifications.
Mechanical / Electrical Parts	Lot traceable to Original Equipment Manufacturers part no, lot no, date code.

12. Documentation and Record Retention

- Suppliers must retain all quality-related records, including inspection reports, material certifications, process validation data, and calibration records for a minimum of 13 years unless otherwise specified on the purchase order.
- Upon request, suppliers must provide AQWSR or its customers with access to relevant records within two working days.
- Disposition of records after the retention period must be managed securely to maintain confidentiality.

13. Competence, Training, and Awareness

- Suppliers must ensure that all employees performing work affecting quality are competent based on education, training, skills, and experience.
- Training programs must be documented, and records must be maintained to demonstrate employee qualifications and ongoing competence.
- Personnel must be made aware of their contributions to product or service conformity, product safety, and the importance of ethical behavior.
- Suppliers must periodically evaluate training effectiveness and ensure updates for changes in processes, products, or customer requirements.
- When required, evidence of training and qualification must be provided to AQWSR upon request.
- Personnel must be trained and aware of their impact on quality, safety, and ethics.
- Training records must be maintained.

14. Performance Monitoring

- Supplier performance is monitored continuously through metrics such as product quality (PPM), on-time delivery, responsiveness to non-conformance issues, and audit findings.
- Suppliers may receive performance scorecards on a quarterly or annual basis, and trends will be used to determine risk levels and continued approval.
- Failure to meet performance thresholds may result in additional scrutiny, formal corrective actions, and potential removal from the approved supplier list.
- Suppliers are encouraged to monitor their own performance against AQWSR's expectations and initiate self-directed improvements.
- Supplier performance is continuously evaluated based on quality (PPM), on-time delivery, responsiveness to corrective actions, and audit outcomes.
- Key metrics include delivery adherence, defect rates, concession frequency, and responsiveness to investigations or change requests.
- Suppliers may receive periodic scorecards or report cards and are expected to address any areas of concern proactively.
- Consistently poor performance may result in supplier probation, increased oversight, removal from the approved list, or financial liability for non-conformances.

15. Ethical and Sustainable Business Practices

- Suppliers are expected to uphold the highest standards of ethical conduct and legal compliance in all business interactions.
- Unethical practices such as bribery, corruption, collusion, falsification of records, and intellectual property theft are strictly prohibited.
- Suppliers must comply with all applicable labor laws, including those related to child labor, working hours, discrimination, and safe working conditions.
- AQWSR encourages suppliers to adopt and promote environmental sustainability practices such as waste reduction, pollution control, and responsible material sourcing.
- Audits or evaluations of supplier ethical practices may be conducted, and non-compliance may lead to suspension or termination of business relationships.
- Suppliers must comply with all applicable laws and regulations relating to human rights, labor practices, environmental impact, and ethical sourcing.
- Child labor, forced labor, and unsafe working conditions are strictly prohibited.
- Suppliers are expected to provide fair compensation, working hours within legal limits, and a workplace free of harassment and discrimination.
- Environmental sustainability practices, such as minimizing waste, pollution control, and responsible material sourcing, are strongly encouraged.
- AQWSR reserves the right to audit supplier's ethical practices and may require evidence of compliance as a condition of continued approval.

16. Additional AS9100 Clause 8.4.3 Requirements

- Suppliers must ensure personnel are competent and, where applicable, qualified or certified to perform designated tasks.
- Statistical techniques must be applied where required for process or product validation, and documented acceptance criteria must be followed.
- Suppliers must provide test specimens for design validation, product verification, or auditing purposes when required by contract.



- Personnel must be made aware of how their work contributes to the conformity of products and services, as well as product safety.
- Suppliers must promote a culture of quality and compliance aligned with AS9100 Rev D expectations.
- Suppliers must demonstrate competence, maintain documentation, and provide test specimens when required.

17. Definitions and Terminology

FAIR: First Article Inspection Report per AS9102.

ECR: Engineering Change Request – a formal proposal for a product or process change.

Concession: Formal approval to accept a non-conforming product as-is or with rework.

PPM: Parts Per Million – a defect rate metric.

COTS: Commercial Off-The-Shelf parts.

MOTS: Modified Off-The-Shelf parts.

Zero Defects: A philosophy aimed at reducing defects to zero.

Counterfeit: Unauthorized copies, substitutions, or modified components misrepresented as genuine.