Supplier Quality Requirements

Process Owner: Quality Assurance Manager		**WSPQ-WI001** **Issue: 6** **Date: April 2025**
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1.0 Scope

This document serves as the general quality requirements by WASP Switching Products (WASP) suppliers and their sub-tiers. It is intended to define the requirements necessary to ensure that all products and services delivered to WASP comply with specified requirements for quality, reliability and integrity.

Suppliers must demonstrate and maintain compliance with these requirements in order to be eligible to receive WASP orders and obtain WASP approved supplier status which will be valid for a period of 3 years after which time re-approval will be required. All approvals are only valid for the scope of work that has been approved therefore suppliers are not to accept any work outside approved scope. Scope maybe extended should this be required via applications through the WASP SQA team. Failure to comply with the requirements herein may result in the disqualification of the supplier.

The requirements contained herein are to be satisfied in addition to any other contractual requirements levied by WASP. The Supplier is responsible for the immediate communication to WASP of any conflicts between existing contracts and the requirements herein.

2.0 Related Documents

WSPP-F002 Purchase Order

WSPQ-F014 Return to Vendor Form

WSPQ-P008 Finish Acceptance Standards

WSPQ-F053 Delivery Paperwork Requirement

3.0 Application

Compliance to this document can be imposed on the WASP Purchase Order (WSPP-F002) and constitutes part of the contractual relationship.

New revisions to this document will apply to orders placed after the published release date for the revision. Each revision of this document will not be applicable to orders placed before the published release date unless through formal PO amendment.

Upon up-issue of this document the supplier will be advised and will be requested to complete an acknowledgement form which must be returned to the WASP quality department. The latest version of this document will be made available on the WASP Website. http://www.waspswitches.co.uk/.

The words “shall” and “must” contained herein indicate mandatory requirements. The words “may” and “should” indicate recommendations. “Notes” are used herein to explain and clarify requirements.

The Supplier is responsible for complying with all documents referenced herein. It is strongly recommended that the supplier obtain and maintain current revision levels of all referenced documents which may be deemed applicable.

4.0 General Quality System Requirements

The Supplier shall have an established Quality Management System which as a minimum must be certified to ISO 9001 but preferably AS9100 to ensure that product provided meets WASP and applicable regulatory and Statutory requirements. In the event the supplier does not have the required quality management system a quality plan will be established with the supplier which ensures that the product specific AS9100 requirements are met.

The Supplier’s quality management system shall be subject to supplier evaluation by WASP and shall include, but not be limited to,

- Product / Technical Audit
- Quality system Audit
- Source Inspections

Evaluation frequency will be determined by the supplier’s performance or criticality of the product or service provided.

4.1 Right of Entry

WASP Customers and regulatory agencies reserve the right to have unlimited access to the Supplier's and relevant sub-tier supplier’s facility and records as necessary.

Where required to support activities such as source inspection, fault investigations or product test, the Supplier shall provide all necessary information, facilities, equipment, documentation and personnel required to support at no additional cost to WASP.

5.0 Business and Risk Management

The supplier should have a long-term plan for sustainability, including a system in place to identify key business and product risks and opportunities in relation to a catastrophic event which would impact WASP's delivery requirements.

6.0 Provision of Quality Records

To support the requirements of 5.1 above the Supplier shall grant WASP Quality access to quality system documentation including the, quality procedures and records. If requested, the Supplier shall translate the required documentation into English.

6.1 Control of Documents and Data

The Supplier is responsible for the control of WASP proprietary documents and for ensuring that they are controlled in order to preclude their use for anything other than WASP products.

The Supplier is responsible for acquiring copies of industry or government documents and/or standards available from commercial sources. Any problem experienced by the Supplier in obtaining required documents should be brought to the immediate attention of the WASP procurement department prior to acceptance of order.

6.2 Control of Records

The Supplier shall retain production documentation and quality records for a period of 10 years minimum after final payment or as required by the applicable PO. This documentation must include:

- Material Certifications,
- Work Orders
- Special Process Certifications
- Test Reports
- Incoming Inspection Records
- Product Build and Test records
- Shipping Documentation.

The Supplier is responsible for the transfer of records to WASP in the event that the Supplier ceases operation.

The Supplier shall remain responsible for the requirements above regardless of whether the Supplier remains an approved WASP supplier or whether for any reason, the Supplier no longer accepts PO's from WASP.

After retention time the supplier shall contact WASP to decide if records are to be returned to WASP or disposed of.

7.0 Management Responsibility

7.1 Quality Management System Planning

As appropriate, the Supplier shall inform WASP Quality of any changes to the quality system (including changes in key personnel with primary responsibility for the Supplier's quality functions). This does not include minor items such as clerical changes. WASP Quality will evaluate the change and the subsequent need for supplier re-qualification activities.

7.2 Responsibility, Authority and Communication

The Supplier shall define and maintain a register of authorities granted to individual personnel within the organization (i.e. First Article Inspection FAI authorised officials, Certificate of Conformity authorized representatives, technical standard authorized personnel, etc).

The Supplier shall provide contact information and access to the person responsible for ensuring that WASP requirements are promoted throughout the organization. Said person must have the authority to resolve quality concerns.

7.3 Supplier Quality Management

Supplier shall have a dedicated person to manage supplier approval and supplier performance.

8.0 Resource Management

The Supplier shall have a process to identify and perform training for all personnel who directly or indirectly affect product quality. The Supplier shall maintain records of this training (including On-The-Job training). These records shall be made available for review upon request.

8.1 Human Factors

The supplier shall ensure that Human Factors that may (or have) cause a detrimental effect on product conformity or safety is considered during the contract / planning stage. Human Factors to be considered could be (but not limited to):

- The effect on personnel when working to tight time-scales
- Personnel having to work excessive hours
- Personal circumstances which may affect a person’s performance

8.2 Ethical Behaviour

The WASP Ethics & Business Conduct policy is to uphold the integrity of our standards of business conduct by providing an avenue for our employees, customers, suppliers and shareowners to report suspected violations of law or our standards of business conduct, and to ask questions when faced with an ethical decision. As a WASP supplier you are required to conduct business in an ethical manner and report any issues relating to ethics and behaviours to us in a timely manner.

9.0 Product Realization

9.1 Planning of Product Realization

Prior to acceptance of work, the Supplier shall evaluate the risk and determine their ability to meet all PO requirements including the manufacture and inspection of all specified design characteristics.

9.2 Configuration management

Unless otherwise specified on the contract or PO, the Supplier’s quality system shall provide for procedures which will ensure that the latest applicable drawings, specifications, and instructions required by the contract or PO, as well as authorised changes thereto, are used for fabrication, inspection and testing.

9.3 Control of Work Transfers

During fulfilment of the PO, the Supplier shall request written approval from WASP before relocating any production, inspection or processing facilities; or before transferring any work between different facilities, or making other changes which may affect product quality.

The Supplier shall establish a process for the control of any work contracted to sub-tiers. This process shall include the verification of the conformity of the work contracted prior to shipment to WASP. The Supplier must ensure that the WASP requirements contained herein are met by all sub-tiers and shall maintain records accordingly.

It is the Supplier's responsibility to ensure that WASP property and proprietary data are controlled per contractual agreements at all levels of the supply chain.

The Supplier shall not act as a broker for the manufacture of product under WASP design control without prior written authorisation from WASP Material Manager or Buyer.

NOTE: Sub-tier manufacturing and processing is acceptable so long as the Supplier performs the necessary incoming inspection, verification and certification activities prior to shipment to WASP.

9.4 Customer Related Processes

All documents including drawings, electronic design approved data & specifications are considered part of the PO requirements when specified directly on the PO or in documents referenced by the PO.

All communications related to the fulfilment of PO requirements shall be carried out through the WASP Material Manager or Buyers in writing. Quality issues including but not limited to nonconformities, corrective action and supplier assessment activities shall be carried out with both WASP Purchasing and SQA departments.

9.5 Design and Development

All design stages of product development are to be formally approved and authorised to enable final design validation and all WIP to be controlled.

Engineering changes must be communicated and controlled to ensure that production documentation is updated in a timely manner.

A controlled and formalised Engineering change control process must be in place to ensure WASP are notified of any changes that would affect fit, form, function or component obsolescence prior to delivery

9.6 Product Safety

All WASP suppliers will ensure that any issues relating to product safety throughout the provision of products to WASP are reported to us within 72 hours. The supplier will ensure that their relevant personnel are made aware of their contribution to product safety.

9.7 Quality Alerts/GIDEP Alerts

Quality Alerts are used to communicate pertinent quality related issues or other approved information to suppliers and/or processors.

Requirements defined within an Alert are amendments within the applicable Collins Aerospace SBU flow down requirements and will typically include an effectivity date.

Suppliers shall perform the following upon receipt of alerts:

- Review the requirements listed in the alert
- Determine contractual impact (if any) to the alert
- Notify the applicable buyer of any potential impact.
- Take necessary actions to ensure compliance to requirements
- Respond as outlined in the alert

Government/Industry Data Exchange Program (“GIDEP”) Alerts when received shall be actioned per the requirements within the Alert correspondence, whether they come through a Collins Aerospace SBU or through a supplier’s supply chain.

10.0 Purchasing

10.1 Purchasing Process

The Supplier is responsible for ensuring that product scheduled for delivery to WASP from sub-tier suppliers complies with all applicable provisions of drawing, specifications, and other requirements of the WASP PO.

The Supplier shall maintain an Approved Supplier List including suppliers’ scope of approval. Criteria shall be established for sub-tier suppliers to achieve and maintain an approved status. The criteria shall not be limited to third party certifications. The Supplier shall establish periodic reviews of approved suppliers to determine their continued suitability including on time delivery.

When WASP establishes the requirement to use specific sub-tier suppliers, this requirement will be noted on the WASP Drawing or agreed prior to the PO being placed. The Supplier's system shall ensure that only the specified sub-tier suppliers are used to procure products or services for PO fulfilment. The Supplier shall maintain records of WASP authorization or selection of sub-tier suppliers.

10.2 Purchasing Information

The Supplier shall flow down all applicable product, regulatory, and quality requirements (including requirements for traceability, documentation, and software) to the Supplier's sub-tiers. The Supplier is responsible for ensuring and validating the compliance of the Supplier's sub-tiers and maintaining documented evidence of such.

10.3 Verification of Purchased Product

The Supplier shall implement a process for the validation of raw material certifications. The process of selection and testing must be defined by the supplier. Chemical / Raw material certifications shall reflect actual values (not range), including mill data, and material certifications match the drawing, specification requirements including part number and revision.

10.4 Special Processes

NADCAP certification is preferred but not required. Process must be performed by trained and/or certified personnel. Examples of special processes Plating, Anodizing, Chemical Cleaning, Paint / Dry Film Coatings, Plating, Stripping, Surface Treatment / Passivation, Etching.

10.5 Production Process Verification

The Supplier shall employ a system for controlling, documenting and maintaining required product quality throughout the manufacturing process whether performed by the Supplier or the Supplier's sub-tiers. This shall include a step-by-step sequence of manufacturing operations and inspection points, including the inspection of receipt of goods, in-process manufacture and final product conformity. This documentation shall provide objective evidence that the resultant product(s) conforms to the specified requirements and shall be traceable to the persons responsible for authorising.

Product inspections should be based on appropriate sampling plans and WASP requirements which ensures the detection and control of product non-conformance.

10.5.1 First Article Inspection Report

Where requested on the WASP purchase order for new, revision change and 2-year lapse in production, the Supplier is responsible for completing a First Article Inspection Report (FAIR) for products under WASP design control. WASP reserves the right to have the first article inspection performed by a WASP representative at the Supplier's facility. Should the initial submission be found discrepant, additional samples may be requested following correction of the cause of discrepancy by the Supplier.

FAIRs are to be completed in accordance with the requirements of the latest revision of AS9102.

WASP approval of a FAIR shall not relieve the Supplier of the responsibility for meeting all specifications and requirements on future shipments of the same product.

Where multi-cavity tools are used, a FAIR documenting the production results from each cavity must be completed.

All FAIR’s must be sent to WASP via the following email address; WASPFair@Collins.com or uploading to Net-Inspect before the delivery of the product to WASP.

10.6 Control of Production Process Changes

Any WASP approved production processes related to products under WASP design control must not be altered without prior approval by WASP Quality. Any characteristics which may be directly or indirectly affected by rework operations shall be identified and re-verified (e.g. re-inspected, retested, environmentally screened, etc.) immediately following rework operations to ensure that operations have not cause direct damage, collateral damage, or introduce contamination.

The Supplier shall define and implement a system that ensures any change to process or equipment used for production is inspected, maintained, and validated prior to use/reuse. A schedule of this planned activity shall be documented.

10.7 Post Delivery Support

As required, all documentation supporting the build and verification of the product shall be made available within 24 hours of the submitted request.

All process nonconformities identified subsequent to the shipment of product to WASP shall be communicated to the WASP Quality Department and relevant buyer.

11.0 Identification and Traceability

11.1 Traceability

The Supplier is responsible to maintain traceability of product and materials through all stages of production including at sub-tier processing sources. Supplier’s system shall ensure that products are traceable back to the raw material batch or lot from which they were made, including traceability to the source mill. Supplier’s system shall also provide means to trace where raw materials have been used.

11.2 Identification

Part identification or part marking requirements shall meet the requirements of the PO, Drawing, Specification, and Statutory or Regulatory requirements.

11.3 Acceptable Signatures

Supplier system shall provide for the control of acceptable signatures or stamps as applicable with regard to authority. This control shall include provisions for stamp assignment, issuance, and use.

NOTE: Signatures must be rendered in ink and the signatories name printed alongside the signature.

For computer generated signatures, the supplier’s system shall provide for the control of documents which do not bear the original signatures or where the name(s) of authorised official(s) are computer generated.

11.4 Customer Property

While in the possession of the supplier, WASP furnished material shall be identified, segregated, protected and safeguarded for use or incorporation into final product.

When material is furnished to a supplier by WASP, the supplier is responsible for inspection and verification that the materials meet applicable requirements upon receipt.

Where WASP tooling or test equipment is provided the supplier shall ensure that this is maintained and where applicable, calibrated. The supplier shall maintain a register of all WASP materials, tooling and test equipment provided.

The supplier shall submit a written request and receive a formal approval before any alteration or repair is performed on customer tooling/gages/fixtures.

11.5 Preservation of product

The Supplier's quality system shall ensure that items shipped are effectively preserved, protected, and packaged to guard against damage, degradation or loss during shipment. All electronic PCB assemblies must be individually packed in ESD protection with no component to component contact.

During production of parts there must be sufficient protection between parts with no metal to metal contact which may cause damage this also applies to the storage of products.

This is to be accomplished in accordance with best commercial practices unless otherwise specified on the PO or contract. The supplier shall implement production and packaging practices that ensure detection and removal of foreign objects and debris. The manufacturing environment must be suitable for production build, test and inspection.

Shelf Life materials or products must be properly identified and labelled to ensure product conformity including necessary environmental conditions i.e. temperature control/clean room. Shipping documentation for shelf life materials must include date of manufacture and expected product life or expiration date. Shelf Life materials must arrive at WASP with a minimum 70% shelf life remaining unless authorized by WASP in writing.

11.6 Control of Monitoring and Measuring Equipment

All test and measuring equipment used to validate product conformity must be calibrated to national standards. Adequate calibration intervals to be established; which are determined by the type of equipment and the frequency of use. Any calibration activities carried out internally or externally, must be documented, maintained and controlled. The calibration status is to be available to all operators and the expiration date of the calibration shown.

Evaluation and action plans are required when an out of calibration issue is identified and the impact this could cause to the product.

WASP shall be notified of any potential nonconformities resulting from equipment used to verify or validate the conformance of product found to be out of calibration.

12.0 Product Certification - Certificate of Conformance (CofC)

The Supplier must submit with each shipment, a Certificate of Conformity signed and dated by an authorized representative certifying that items or services have been manufactured, inspected and tested in accordance with the WASP Purchase Order requirements. Note, the CofC is only valid where all build, test and inspection quality records has been fully completed by the supplier and maintained in accordance with section 5 of this document.

The CofC must include the following:

- Supplier's Name
- Supplier's Physical Address (including country of manufacture)
- Customer's Name
- PO and Line Item Number
- WASP Part Number
- Serial Numbers (where applicable)
- Part Description (as identified on the print)
- Part Revision Level
- Quantity of Parts Supplied
- Concession Numbers (where applicable)
- Return To Vendor Number (where products have been returned by WASP for rework)
- Name and Signature of Authorized Representative
- Lot / batch numbers
- Shelf life information / expiration dates.

13.0 Control of Nonconforming Outputs (Product)

The Supplier shall establish a system for identification, segregation, product recall and documentation of any nonconforming product(s) found during the manufacturing or inspection operations. A formalised process is to be in place to reject non-conforming product to any sub-tier suppliers.

In exceptional circumstances WASP may consider a concession request from the supplier for materials or components identified as non-conforming to the WASP drawings, Purchase Order, or other requirements.

Note: Under no circumstances will the supplier conduct any product rework without formal notification, i.e. an approved concession or production permit.

Where this is the case the supplier shall submit their concession form detailing the product part number, description, quantity affected and description of the non-conformance to the WASP quality department in the first instance and BEFORE shipment of product.

All product deemed as scrap and this must be approved by WASP SQA and will be permanently defaced and rendered beyond economical repair to prevent its re-use and will be disposed of in accordance with the supplier's waste and environmental policies.

14.0 Rejection of Supplied Product

Products received by WASP and subsequently rejected at receipt inspection or during manufacture will be rejected back to the supplier through the WASP Return to Vendor (RTV) process. The supplier is required to confirm containment actions within 24hrs of RTV notification. Complete all sections of the RTV and returned to WASP quality within 10 workings days of receipt of product. Evidence of the actions taken shall be provided in form of an image, screenshot, document update etc is required for RTV to be formally closed by WASP quality.

Failure to adhere to the 10 working days deadline may result in no future orders being placed until formal closure of RTV by WASP Quality.

All replacement / reworked products must be supplied with a new Certificate of Conformance which references the relevant RTV number.

Where deemed necessary the supplier shall carry out a full 8D investigation in conjunction with the WASP quality Department

15.0 Counterfeit Parts

The use of counterfeit parts is prohibited on all WASP products this includes but not limited to:

- Parts that have been refurbished or reclaimed, but represented as a new product.
- Parts which are not consistent with the ordered part.
- Parts sold with modified labelling or markings intended to misrepresent the parts form, fit, function or grade.
- Any parts that have not been sourced through certified source and where traceability cannot be provided.

16.0 Obsolescence

Notification of obsolescence is required at the earliest possible opportunity.

17.0 Inspection Criteria and Sample Plaques

When drawing states inspect to approved sample plaque and/or WASP Finish Acceptance Standards this is a mandatory exercise. The Supplier must ensure they have an approved sample plaque and the latest issue of the WASP Finish Acceptance Standards WSPQ-P008. These will be made available upon request. Sample plaques must be protected and stored to prevent any damage occurring. In the event a sample plaque is lost or damaged the supplier must inform WASP that a replacement is required.

18.0 Performance Evaluation

All suppliers will be subject to ongoing performance measurements using supplier scorecards which measures on time delivery, on quality delivery (right first time) and any discrepant deliveries which will include incorrect information on CofC's for example no issue, incorrect issue or incorrect part number stated or no FAI received. For repeat paperwork discrepancies the SQA team will implement a paperwork requirement checklist (WSPQ-F053) that will be required to be completed, signed and returned with shipment of parts until performance improves. Scorecards will be sent to the supplier on a regular basis and any suppliers not performing to the minimum score requirement of 90% of on quality delivery will be required to work with the WASP SQA team in the form of a quality plan to achieve the improvements required.

19.0 Designated Supplier Quality Representative (DSQR)

Where identified the supplier may be asked to undertake the responsibility of becoming a DSQR. In doing so this allows WASP to ship parts direct to WASP stock bypassing goods inwards inspection. Training will be given by the WASP SQA team. The persons identified will have the following responsibilities.

- DSQR stamp is applied to each Certificate of Conformity provided by the supplier's company
- Prior to stamping the Certificate of Conformity all production paperwork is completed correctly
- Goods Inwards inspection is conducted of all required component products
- In process / stage inspections are conducted and stamped
- Ensure operations are carried out by people certified as competent by the Suppliers company
- Where applicable, all test records / results are within specification and are complete for each item produced
- WASP are informed of any issues that may affect product quality at the earliest opportunity and that no product with known quality issues are dispatched to WASP
- Undergo an annual eye test examination and provide WASP with evidence of this

20.0 Document History

Issue 1 – March 2011 First Issue.

Issue 2 – Updated to show referenced QCS document, latest issue availability, and Disposition of Non-Conforming materials.

Issue 1 – Updated to be bought in line with AS9100 Rev D requirements. Document given a new number supersedes QCS1003. Returned to Issue 1 to reflect new document numbering system.

Issue 2 – Jan 2018 – Updated to reflect new Supplier Evaluation Assessment.

Issue 3 – June 2018 – Updated to include references 8.1 Human factors, 8.2 Ethical behaviour and 9.6 Product safety. 17.0 Inspection criteria and sample plaques.

Issue 4 – Feb 2020 – Updated to contain reference 19.0 DSQR, 11.5 improved statement about packaging and handling requirements, 14.0 RTV requirement and new SQA email, 18.0 inclusion of delivery checklist.

Issue 5 – Feb 2023 – Updated to add delivery paperwork requirement document reference WSPQ-F053. Obsolete RTV email address removed. Special Process requirement added, inserted as 10.4. Reference 17.0 updated to include issue 1 to WSPQ-P008.

Issue 6 – April 2025 – Removed “Uncontrolled when Printed” from footer and “Proprietary to WASP” statements from front page, as per comments from Collins Cybersecurity & Compliance. Updated 10.1 to update specific sub-tier supplier requirements. Updated 10.5.1 to add AS9102 and Net-Inspect requirements, updated FAIR email address & add 2-year lapse requirement. Update 12.0 to change from “Part Number” to “WASP Part Number.”