Manual	2	Supplier Quality & Regulatory Requirements	
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1.0 Scope

This document covers all the expected requirements from Sumac Precision Engineering's suppliers who are involved in product realisations.

This document does not apply to suppliers such as those who provide office supplies, administrative consumables, furniture, packing materials etc.

Where Sumac's customers' requirements are also flowed down via the Purchase order any conflict between the documents the customers shall take preference.

2.0 Control Of this Document

This document is provided and available to all Suppliers, it remains the property of Sumac Precision Engineering and can only be amended and issued by Sumac Precision Engineering.

Any questions regarding this document shall be addressed in the first instance through the individual QA/Purchasing contacts.

3.0 Supplier Quality Assurance Strategy

3.1 Performance Monitoring

All suppliers are totally responsible for ensuring that 100% defect free product is delivered to Sumac. Product to be delivered from suppliers may be subject to Receipt or Source Inspection activity.

3.2 Organisational/Policy Changes

The supplier shall formally advise Sumac's, Quality Department of any organization or policy changes which directly or indirectly affect:

- The suppliers Quality Department or Senior Management

- The conditions of approval specified on the purchase order
- Any changes associated with approvals granted by National, International or Official Authorities.

3.3 Surveillance Reviews

It may be required for Sumac's Quality Assurance Representatives and/or customer representatives to make periodic surveillance visits to the supplier or for the supplier to participate in Reviews/Seminars as deemed necessary given reasonable notice. Where this is required all material, data, quality records and facilities pertaining to product for Sumac should be made available for examination on request.

4.0 SUPPLIERS BUSINESS MANAGEMENT SYSTEM

4.1 Quality Management System

The system shall satisfy one or more of the ISO 9000 series of documents or equivalent, or be acceptable to the Organisations Quality Assurance for the scope of work undertaken by the supplier.

Where applicable, the supplier shall conform to the requirements of the Health and Safety at work act, or in the case of overseas suppliers, the appropriate legislation for that country shall apply.

System documentation shall include requirements imposed by applicable regulatory bodies, where applicable.

The supplier shall establish a process for configuration management appropriate to the product.

All National/International/Proprietary Standards and other pertinent documents that form part of the contract or purchase order shall be obtained and maintained to the latest edition by the supplier.

The supplier shall be responsible for ensuring that all documents relative to the contract/purchase order are obtained.

All records shall be held for a minimum of thirteen years or the time expressed on the contract. After this period The Organisation shall be contacted for disposition of records if required

Correction fluid shall not be used to incorporate any changes on quality records.

4.2 Management Responsibility

The supplier's management representative shall have the authority and organizational freedom to resolve all matters pertaining to quality.

4.3 Recourse Management

The work environment must be considered to ensure that product conformity is not affected, i.e., temperature, lighting, cleanliness, electrostatic discharge, etc.

4.4 Product Realisation

Where applicable, the supplier shall ensure that all risks associated with new technology or processes and/or short delivery timescales have been evaluated.

4.5 Purchasing

The supplier shall be responsible for the quality of all products/services purchased from subcontractors, including Sumac's designated sources. In addition, the particular requirements of this document and any others listed on the purchase order shall be flowed down to subcontractors where the contract/purchase order demands.

The supplier shall maintain a list of approved subcontractors, which includes the scope of approval.

Sumac Precision Engineering does not permit sub-tier subcontracting of Special Processes Unless permission is given via our purchase order instructions.

Subcontractor performance is to be reviewed and recorded; these reviews shall have means of monitoring subcontractor performance and be used as a basis for establishing the level of controls to be implemented

The supplier shall have a process that defines the necessary procedures to follow in the event a subcontractor does not meet the necessary requirements

The Supplier's purchasing documents shall include the following where applicable:

- Test, examination, inspection and the Organisation requirements and any related instructions and requirements.
- Test specimen requirements necessary for design approval, production approval, product verification, and investigation or auditing.
- Requirement to flow down to subcontractors, the applicable requirements in purchasing documents, including key characteristics where required.

The supplier shall implement procedures to verify purchased products, these may include:

- Obtaining objective evidence of product quality from the subcontractor (e.g., certificate of conformity, statistical process control, etc.).
- Inspection and audit at source.
- Review of the required documentation.

4.6 Prevention of Counterfeit Product

The supplier shall take action to plan, implement, and control the prevention of counterfeit or suspect counterfeit part use by:

- Training of appropriate persons in the awareness and prevention of counterfeit parts;
- Applying controls for acquiring externally provided product from original or authorised manufacturers, authorised distributors, or other approved sources via an approved suppliers listing
- Controlling requirements for assuring traceability of parts and components to their original or authorised manufacturers;
- Appropriate flow down of requirements via PO or contract to sub-contractors
- Monitoring of counterfeit parts reporting from external sources

Suspect counterfeit materials should not be returned to vendors but held in quarantine for examination by the relevant authorities.

4.7 Production & Service Provision

The supplier shall be accountable for all products during manufacture and be able to demonstrate control of parts quantities, split orders and nonconformities.

Quality records shall be able to demonstrate that all manufacturing and inspection operations have been completed as planned, or as otherwise documented and authorised.

Where utilities can affect product quality, measures shall be taken to ensure controlled conditions are not compromised.

The supplier shall take the necessary steps to ensure the prevention, detection and removal of foreign objects.

The supplier shall ensure that persons are aware of their contribution to product or service conformity, their contribution to product safety and the importance of ethical behaviour.

Production operations shall be carried out in accordance with approved data, including as necessary, drawings, route cards, manufacturing plans, inspection criteria, specific or non-specific tools and numerical control programmes.

The design, manufacture, validation, maintenance and the controlled use of specific tooling shall be identified and documented.

Changes to production processes shall only be carried out by identified authorised personnel, all changes that require customer acceptance shall be identified and permission obtained prior to making any change. Changes affecting processes, tooling and programmes shall be documented in accordance with system procedures, the resulting changes shall be verified as achieved without affecting product quality.

Production equipment including NC programmes shall be validated before use and inspected periodically to ensure repeatability; validation shall include verification of the first article produced.
Work that is programmed for manufacture that is produced outside the supplier's premises, the supplier shall define the procedure to validate the location and to control the process and product.

The additions below, where specified in the contract or purchase order, shall also apply:

- The design of tooling shall be such that variable measurements of the product can be taken particularly for identified key characteristics.
- The identification of in-process verification points for process or product conformance that cannot be verified at a later stage of manufacture.
- The establishment of process controls and the creation of control plans where key characteristics have been identified.

4.8 Special Processes

All special processes that are to be implemented according to the manufacturing process shall be qualified before use.

All aspects of special processes shall be controlled in accordance with defined specifications, including any changes to special processes.

The significant operations and parameters in the process shall be identified and controlled during production.

4.9 Product Identification and Traceability

According to the level of traceability required by the contract, the supplier's system shall provide for the following:

- The identification of a product's actual configuration shall be maintained against the required and agreed configuration
- All items manufactured from the same batch of raw material or from the same manufacturing batch are to be traced, including the delivery and/or scrap details of all products from the same batch;
- Acceptance media, such as electronic signatures and passwords, shall have controls established.
- Identification to be maintained for the life of the product.
- A manufacturing record of a given product to be retrieved.
- Delivery paperwork shall be present at delivery and protected against loss or deterioration.
- For an assembly, the identity of its components and those of the next higher assembly are to be traced:
  - To the raw material, with records being maintained (as required).
  - On electronic components, via the manufacturer's batch/lot/date code.

4.10 Preservation Of Product

Procedures shall define the following:

- Cleaning
- Prevention and detection of foreign objects (FOD)
- Specific handling of sensitive products
- Marking and labelling including safety warnings
- Shelf-life controls and stock rotation
- Special handling of hazardous materials

5.0 Verification Of Product Or Service

5.1 Control of Inspection, Measuring and Test Equipment

The quality system shall include all items used for product verification and acceptance to be calibrated, including personally owned equipment.

Responsibilities shall be defined as to control of equipment, including tools supplied by the Organisation, a list of which must be maintained.

Where equipment is found to be out of calibration, any potential non-conformance shall be dispositioned.

Procedures shall define the method of recall for measuring devices that require calibration

5.2 First Article Inspection

First Article Inspection where requested, shall be carried out in accordance with the latest issue of AS9102

The First Article Component shall be identified upon delivery

5.3 Receipt Inspection

When certificates of conformity/test reports are used to verify incoming material, all data shall be verified as conforming to the requirements of the purchase order and applicable specifications, the documents shall be validated periodically.

5.4 Inspection & Test Records

Records shall show the actual test results when required by the specification or inspection test plan.

Where required to demonstrate product qualification, quality records shall provide evidence that the product meets the defined requirements.

5.5 Release Requirements

All products supplied to purchase order requirements shall be new and unused, products from a manufacturer shall not be more than three years old, and from a stockist, not more than seven years old unless otherwise agreed and documented.

All products are to be released from the supplier receiving the purchase order, unless otherwise agreed in advance.

On delivery of the product, all applicable documentation shall be enclosed.

All products shall conform to the requirements of the purchase order with regard to quantity, identity and specification; any equivalents shall be agreed and documented in advance.

Delivery paperwork shall reflect both the equivalent and the required product as per the purchase order and certified by the supplier.

When required by the purchase order, all delivered products are to be accompanied by a uniquely identified Certificate of Conformity/Release Certificate which includes the following minimum information:

- The Purchase Order number
- A description of the product together with the relevant part numbers (as defined on the Purchase Order) and with quantities delivered.
- Any serial numbers must be quoted, including lower-level serial numbers for assemblies.
- A certificate statement that the items have been inspected/tested and conform in all respects with the Purchase Order requirements.
- The use of electronic signatures for release notes is acceptable, providing that only the authorized signatory has access to the release system, systems that allow general access is not acceptable.

The Certificate of Conformity shall also include the following where applicable:

- The rejection note number.
- Specification and/or material specification and batch/lot number.

- Production permit/concession numbers.
- Any safety hazard identification for material handlers.
- The drawing issue number.
- Cure date/life expiry date for non-metallic products with a finite life.
- Spring rates/load results when required.
- Test reports.

For stockists, the original manufacturers release certificate serial number shall be endorsed on the stockists Certificate of Conformity that accompanies the products.

For metallic raw material, a copy of the original mill certificate shall accompany the product.

The supply of any service or product relating to Pyrometry must be done so in compliance with AMS2750

5.6 Key Characteristic's

Where key characteristics have been identified they shall be monitored, controlled and recorded with a copy of the report submitted with the delivery.

6.0 CONTROL OF NONCONFORMING PRODUCT

6.1 Containment

When notified of a non-conformance or a non-conformance is found containment action should be carried out immediately and reported back within 48 hours.

Identify, locate and check all suspect product related to the nonconformities as follows

- Work In Progress.
- Stores Stock.
- Despatch / Shipping area
- In Transit
- At sub-tier suppliers.
- Similar Parts / processes
- Previously supplied affected delivery

6.2 Review & Disposition of Nonconforming Product

Internal procedures shall define the approval process for personnel making material review decisions.

Repaired or products defined as "use as is" shall not be dispatched to the Organisation and will not be accepted, this also includes regarded material.

Scrap material and products shall be permanently marked or controlled until physically rendered unusable.

Where product nonconformity affects product already delivered, the Organisation is to be informed immediately with the necessary product identification and quantities affected together with delivery dates. The supplier is required to retain all relevant documented information that describes the non-conformity, actions taken, any concession applications and authorities in respect to these actions.

6.3 Corrective Action

A corrective action plan shall be supplied in the event of non-conforming product.

Where non-conformance is identified post-delivery to the organisation, notification of non-conforming product will normally be sent by the organisation to the supplier via e-mail and the supplier shall complete the form and return with full root cause analysis in accordance with the requested response time that is stipulated on the NCR.

If the analysis defines the root cause of non-conformance to be the responsibility of a subcontractor, corrective action must be flowed down to the subcontractor. Response to the NCR from the subcontractor must be in a timely manner to support the requested response time that is stipulated on the original NCR.

If timely actions as stated above are not achieved, the NCR details shall be entered onto the Organisations Risk Register for escalation to Senior Management and for consideration of suspension of further supplies.

Where corrective actions are not achieved, specific and timely actions shall be further defined.

Concessions will not normally be accepted however, in extreme circumstances concessions may be accepted and the cost of application shall be borne by the supplier.

The supplier is required to retain all relevant documented information that describes the non-conformity, actions taken, any concession applications and authorities in respect to these actions.

7.0 Data Protection

The Supplier shall ensure that access to Sumac's Information is restricted to only those of its employees, consultants, contractors, professional advisors and approved sub-contractor(s) ("Permitted Parties") who have a need to know the information.

Any supplier/ subcontractor receiving or having access to information deemed to be sensitive, confidential or information considered to be Sumac's intellectual property will need to sign a conditionality agreement

8.0 Modern Slavery

The Supplier shall to ensure compliance with the Modern Slavery Act 2015 which contains specific prohibitions against the use of forced, compulsory or trafficked labour, or anyone held in slavery or servitude (whether adults or children).

9.0 Revision Summary

Issue	Description	Date
Rev 1.0	New document	14/10/2021