



1. PURPOSE

1.1 This document establishes product assurance requirements for all products/services ordered under the RAEG Purchase Order, of which these requirements are part of, to assure that such products/services conform to the required levels of quality and reliability. It is noted that products/services purchased on this order are intended for use in applications, such as Aerospace, or Aviation, that require a high level of quality and reliability.

1.2 THE FOLLOWING REQUIREMENTS A-S IS A PART OF EVERY PURCHASE ORDER ISSUED AND ACCEPTED BY ROGERSON AIRCRAFT EQUIPMENT GROUP SUPPLIERS;

- A. Supplier must notify Rogerson Aircraft Equipment Group (RAEG) of any nonconforming product condition which exist.
- B. Supplier shall notify RAEG of nonconforming processes, products, or services and obtain approval for their Use-As-Is disposition. Supplier must obtain written approval from RAEG for the use and processing of nonconforming product (Supplier Deviation Request Form 610-1). Verbal agreements are not valid and cannot override any PO requirements or drawing requirements.
- C. Supplier must notify RAEG of changes in the product or process (even in the event the supplier is the OEM, the supplier must notify RAEG to verify that the change does not have any effect on RAEG product design).
- D. Supplier must notify RAEG of changes of sub-tier suppliers, changes of manufacturing facility location and, where required, obtain RAEG approval and flow down to the supplier chain the applicable requirements, including RAEG customer's requirements.
- E. Supplier must implement record retention for a period of no less than 10 years unless otherwise specified by purchase order/contract. At the end of retention period, records shall be destroyed by a method that maintains confidentiality.
- F. Supplier shall provide Right of access to RAEG, RAEG'S customer and FAA to the applicable areas of all facilities, at any level of the supply chain, involved with the processing of the purchase order and to all applicable records.
- G. Supplier shall assure that all items are adequately packed and packaged to prevent damage or contamination to the items or their markings.
- H. Supplier must have a compliant (QMS) Quality Management System. (AS9100D, ISO9001 or approved system by RAEG).
- I. Counterfeit Parts: The supplier shall implement a counterfeit electronic parts detection and avoidance system consistent with the requirements of the latest dated version of SAE standard AS5553 or equivalent.
- J. The Supplier shall ensure design and development control is in place and that the drawings and specification are at the relevant revision status specified on the Purchase Order. The Supplier provides test specimens for design approval, inspection/verification, investigation, or auditing as applicable.
- K. The Supplier shall ensure special requirements, critical items, or key characteristics are controlled as required by Drawing
- L. Supplier is required to establish and maintain a Foreign Object Debris/Damage (FOD) prevention program that employs appropriate housekeeping practices to assure timely detection and removal of residue/debris generated, during operations and normal daily tasks.
- M. Supplier is required to establish and maintain an Electro Static Discharge (ESD) prevention program when working on ESD sensitive devices.
- N. The Supplier shall comply with any special requirements requested by RAEG regarding the control of drawings and specification i.e. ITAR compliance, Export Compliance, etc.



- O. Supplier shall ensure test, inspection, and verification (including production process verification) is controlled.
- P. Supplier shall use statistical techniques for product acceptance and related instructions for acceptance by the organization, as applicable
- Q. Supplier shall flow down to external providers applicable requirements including RAEG requirements
- R. Supplier is required to ensure that all personnel within their organization are aware of their contribution to ensuring Product Conformity & Safety. When acceptance authority media are used (e.g., stamps, electronic signatures, passwords, etc.), the supplier shall establish appropriate controls for the media, through means like internal audit etc. as defined in their system.
- S. Supplier is required to ensure that all personnel with their organization are aware of the importance of ethical behavior.

2. SPECIAL PRODUCT ASSURANCE REQUIREMENTS

The following special product assurance requirements clauses are applicable to the Purchase Order only when specifically called out by the clause numbers on the Purchase Order.

Q1 Quality System per ISO9001:2015 - The Sellers quality system shall meet the requirements of ISO9001:20015 "Quality Management System".

Q2 Quality System per AS9100D - The Seller's quality system shall meet the requirements of AS9100D - "Aerospace QMS Standard".

Q3 Quality System per CFR Part 21-The Seller's quality system shall meet the requirements of CFR Part 21 - "Organization Requirements".

Q4 Quality System per CFR Part 145 - Supplier must meet the requirements of CFR Part 145 "FAA Approved Repair Station"

Q5 NADCAP- Supplier special processes shall be certified by NADCAP

Q6 Basic Inspection System -The Seller's inspection and quality system shall be approved by RAEG. The seller must complete Form 610 Supplier Approval and Quality Survey.

Q7 Calibration - The Seller shall implement and maintain a system for control and use of Measurement and Test Equipment. All MT&E shall be calibrated against certified standards which have known valid traceability to NIST.

Q8 Certificate of Conformance - The Seller shall supply a C of C covering each shipment of articles on the packing slip; the certificate of conformance must bear the signature and title of Seller's responsible representative.

Objective evidence to support this certificate of conformance must be on file and must be made available to the Buyer for review upon request."

Q9 Material Certifications - For each lot or heat of material supplied on this order, the Seller shall furnish a certified material test report showing the material description, including as applicable, the material name or designation, alloy, type, grade or condition, the original producers (mill) name, the lot or heat number and the material specification and revision to which the material complies. Suppliers shall not disguise the pedigree of material or chain of ownership by removal of a previous supplier's name, nomenclature or identification. Material certification requirements shall be flowed to all subcontractors at every tier.

Q10 Process Certifications - For all processes required by the Purchase Order and performed by the Seller or by his sub-tier suppliers, the Seller shall furnish the original certification/test report issued by the Seller or his sub-tier supplier that actually performed the process. The certification/test report shall include a complete description of the process performed (name, applicable process specification, type, class, grade, etc.), the quantity and description (part number, name) of the items processed and when applicable a statement that the process was performed by certified operator(s).



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- Q11 8130-3 Tag** - Seller shall furnish an Airworthiness Tag for each product specified per the purchase order.
- Q12 Functional Test Reports** - The Seller shall furnish the actual test results (data sheets) recording actual readings for all test parameters specified by the drawing specification or purchase order. Test reports must be identifiable with individual item or lot submitted and signed by Seller's authorized representative.
- Q13 DFARS 252.225 Specialty Metals**- Strict accountability of material furnished must be melted in one of the approved qualified countries. Material Certification must be provided.
- Q14 Non-Destructive Test Reports** - The Seller shall furnish with each shipment one (1) copy of the certified test report for all NDT tests (penetrant, magnetic particle, radiographic x-ray, ultrasonic) performed. The report shall be issued by the organization actually performing the tests, include a complete description of the test (test name, specification type, method, acceptance criteria and the certified technician who performed and/or evaluated the test(s) and shall be signed by a responsible official of the issuing organization. All items subjected to NDT tests shall be identified with the appropriate NDT stamp. When applicable, radiographic reports shall be accompanied by a shooting sketch and the exposed film. When parts are serialized or identified with lot or batch numbers, such identification shall appear on the test reports and exposed film.
- Q15 Source Inspection** - Items to be delivered under this Purchase Order require final inspection, tests or surveillance by the Buyer's Quality Representative at the Seller's plant, prior to delivery. When the product is ready for source inspection, the Seller shall notify Buyer's Purchasing Department at least (48) hours in advance to permit scheduling of source inspection. Upon request, the Seller shall make available to the Buyer, facilities, equipment and personnel to operate the equipment as required.
- Q16 Government Inspection** - Is required prior to shipment from Seller's plant. Upon receipt of this Purchase Order, Seller shall promptly notify the Government representative who normally services Seller's plant, in order that appropriate planning for Government inspection can be accomplished. If the representative of the Government Inspection Office cannot be located, the Buyer should be notified immediately. Minimum 72 hour notification required.
- Q17 Inspection Reports** – See clause Q18.
- Q18 First Article Inspection per AS9102**- Seller shall submit a complete First Article Report per latest revision of the AS9102 standard. The first article part(s) shall be clearly identified by tagging, serial number, or other positive identification method.
- Q19 Inspection Report** - Each shipment shall be accompanied with (1) legible copy of an inspection report per acceptable sampling plans. The inspection report shall identify each specification and/or requirement attribute individually. The report shall identify the purchase order number, and the signature and title of the authorize representative.
- Q20 Tooling/Gages** - All tooling gages or test equipment fabricated by Seller at RAEG expense, or supplied by RAEG for use by Seller shall be considered the property of RAEG and shall be used only for production of articles on RAEG Purchase Orders. Such tooling, gages or test equipment shall be inspected, controlled and maintained.
- Q21 Limited Shelf Life Materials** - Seller shall show on each container of materials having a limited or specified shelf life (both Seller's in-plant containers and containers in which material is delivered to Buyer) the cure or manufacture date, expiration date, lot or batch number and special storage and handling conditions applicable to the contents: this information shall be in addition to the normal identification requirements of name, part or code number, specification number, type, size, quantity, etc. Special handling conditions shall be recorded on certifications and shipping documents covering the material as delivered to Buyer, in addition to normal identification information.

NOTE: All shelf life materials must have a minimum of 85% shelf life

- Q22 Material Traceability, Identification and Control** - The Seller shall provide positive traceability of each part (and serial numbers, if applicable) to the material certification/test reports of the specific raw material from which it was



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manufactured. Traceability may be provided by identifying individual parts with the producers heat lot number, batch or melt or a unique identifier assigned by Seller and cross referenced to the material certifications/test reports. Parts with insufficient surface for marking may be packaged in separate lots and identified with lot numbers on unit packages on attached tags.

NOTE: When size or use prohibits marking the item directly, an attached tag with the above information may be used.

- Q23 Safety Data Sheets** - If the nature or content of the seller's product requires a safety data sheet (SDS) the seller shall ensure that the SDS accompanies the shipment.
- Q24 Mandatory Procurement Requirements**-For use in man space flight. Material, manufacturing and workmanship of the highest quality standards are essential to astronaut safety. If you are able to supply the desired items with a quality, which is higher than that of, the items specified or proposed, you are requested to bring this fact to the immediate attention of the RAEG purchaser as identified on this Purchase Order.
- Q24 Foreign Object Debris** – Supplier to implement a FOD Foreign Objects Debris/ Damage (FOD) prevention plan at their facility in compliance with AS/EN/SJAC 9146 Foreign Object Damage (FOD) Prevention Program -- Requirements for Aviation, Space, and Defense Organizations or similar.
- Q25 Counterfeit product prevention** - Supplier to implement process to prevent counterfeit parts getting into their product. All parts to fulfill RAEG purchase order should be sourced from Original Equipment Manufacturer OEM or Original Component Manufacturers or their authorized distributors only. Supplier to get RAEG approval in writing before using Independent distributors as source for any parts.
- Q26 Electrostatic Discharge** - Supplier shall prepare, implement, and maintain a control plan applicable to Electrostatic Discharge (ESD) susceptible items that are handled, stored, transported, and delivered to RAEG. See ANSI/ESD S 20.20 - Protection of Electrical and Electronic Parts, Assemblies and Equipment, as reference.