

**VT Volant General Quality Requirements:**

VOLANT will not accept material that does not fully comply with the drawing and specifications for form, fit, function, interchangeability or appearance (when applicable) unless authorized by the VT VOLANT Purchasing Representative in writing. The following quality requirements apply to all suppliers and all purchase orders:

- **Inspection System:** The supplier must establish and maintain an inspection system compliant with ISO9000, AS9100 or otherwise approved by VT VOLANT Quality.
- **Control of Changes:** Supplier agrees not to make any change in materials or design details, processes, services, facility location, or external providers without prior written approval from the VT VOLANT Purchasing Representative. The supplier must identify (e.g., on the Certificate of Conformance or the packing sheet) the drawing revisions used to manufacture the end item product being delivered.
- **Supplier Corrective Action:** When requested by VT VOLANT, supplier must provide a statement of corrective action on a failure of supplier's product or quality system.
- **FAA / VT VOLANT Surveillance and Right of Entry:** At times it may be necessary for the FAA, VT VOLANT and/or our customers to visit supplier facilities and/or their sub-tier suppliers for the purpose of verifying regulatory and contract compliance and product conformity. Arrangements for such visits will be coordinated through the VT VOLANT Purchasing Representative.
- **Product Identification:** Parts, assemblies and components must be identified as specified on the engineering drawing or applicable specification. When identification is not specified on the drawing, the product must be identified as specified on the PO. When items are too small to easily identify, they may be bagged and tagged.
- **Records:** All records of inspections, processes and tests performed on products produced for VT VOLANT shall be maintained complete and accurate for a minimum period of 10 years, or as specified in the PO. These records shall be available for review by VT VOLANT and copies shall be furnished upon request.
- **Configuration Management:** Supplier must produce all parts, assemblies, or other materials in accordance with the requirements of the PO, specifications, engineering drawings and customer requirements as applicable. All drawings and specifications provided to the supplier by VT VOLANT are considered controlled and proprietary.
- **A Certificate of Conformance (COC):** Supplier must certify that the product delivered conforms in every aspect to the contractual and technical requirements of the PO, specifications, drawings and referenced standards. **The COC must identify the part number and the drawing revisions used to manufacture the end item product being delivered.** A COC must accompany each shipment by the supplier. When parts, assemblies or materials are procured through a distributor, a copy of the COC from the original manufacturer must accompany the shipment.
- **Report of Discrepancy:** Any variation from drawing, specification or other purchase order requirements must be documented by the supplier and submitted to VT VOLANT Purchasing for consideration and disposition prior to shipping product to VT VOLANT. A copy of the disposition document must accompany each affected shipment. Suppliers shall notify VT Volant in writing within 24 hours of any products, articles, or services that have been released from or shipped by the supplier and subsequently found not to conform to VT Volant's requirements.
- **In the event a supplier subcontracts work or a portion of the work on VT Volant parts, the supplier must ensure that VT Volant requirements are flowed down to the lower tier supplier.** This includes, where applicable, key characteristics defined on the engineering drawing. If the supplier delegates inspection authority, it must comply with the requirements of AS9015.
- **Democratic Republic of the Congo (DRC) Conflict Free Sources of Supply:** Suppliers of products containing gold, tin, tantalum, or tungsten shall ensure that these metals are obtained from sources that are DRC Conflict Free in accordance with Securities and Exchange Commission (SEC) regulations.

## VT Volant Specific Quality Requirements

In addition to the General Quality Requirements defined above, the following additional requirements may be applied on a case by case basis depending on the commodity being procured.

**QR1 Shelf Life and Temperature Sensitive Materials:** Supplier must identify all materials, which have definite characteristics of quality degradation with age or environment. The supplier must affix this information directly on each individual material container or the article. This identification must indicate the date of manufacture and the date at which the material expires. Shelf life shall be determined on the basis of the appropriate material or process specification to which the material is related to. When environment is a factor in determining useful life, the identification must include the storage conditions required to achieve the stated life. A minimum of 75% of the applicable material shelf life from the date of manufacture must remain upon receipt of the material by VT VOLANT, or the material is subject to rejection. A temperature recording device must accompany all shipments of temperature sensitive materials. Recording devices are to be calibrated for temperature, time and the data must be either in chart form or retrievable via computer hook up.

**QR2 Static Sensitive Materials:** The following requirements apply to materials, devices or assemblies capable of being degraded, damaged or destroyed by static electrical charges or discharges. All items must be preserved and packaged in such a manner as to preclude their exposure to the generation or discharge of static electrical potential. Packaging must be clearly marked to indicate the contents are subject to damage or degradation by static electricity.

**QR3 Safety Data Sheets:** Materials must be supplied in accordance with the latest revision of OSHA's hazard communication standard 29 CFR 1910-1200, OSHA instruction CPL 2-2.38, and WISHA standard 296-62-05413 ([Safety Data Sheets](#)). Received materials not in compliance with the above requirements are subject to immediate rejection and return at supplier's expense. In addition, if supplier is aware of any additional precautions or handling techniques instituted with regard to other customers, you are requested to submit those safeguards with the MSDS. Supplier must send to VT VOLANT a Toxic Substance Control Act (TSCA) certification letter for products purchased on this purchase order including a statement that all chemical components are listed by the Toxic Substances Control Act Inventory (PL 94-94-969).

**QR4 Calibration System Requirements:** Supplier is required to maintain a calibration system that complies with the general requirements of this document and ISO 10012. An equivalent calibration system may be substituted with VT Volant approval. Calibration standards must be traceable to NIST. Compliance is subject to audit by VT VOLANT Quality. Providers of calibration services shall perform calibration in accordance with manufacturer's specification or unless otherwise noted. Calibration standards shall be traceable to the National Institute of Standards and Technology (NIST).

**QR5 Certified Test Data:** Certified test data is required and must contain quantitative test results versus requirements and permissible tolerance for values measured and must indicate factual information necessary to demonstrate conformance to the requirements reflected on the drawing, specification or purchase order.

Test reports must include the following:

- a. name/number of the specification for which the material is in compliance;
- b. lot, batch, or other traceable designation;
- c. actual test results
- d. a statement of conformance to the applicable specification.

**QR6 First Article Inspection (FAI):** The supplier must perform a first article inspection on the initial part or lot at the detail, sub-assembly or assembly level. The results of the FAI must include 100% conformance to the drawing characteristics, special processes, functional tests and laboratory requirements. A copy of the supplier's FAI report must be sent with each initial shipment of a part number configuration. The FAI part must be **clearly identified** as such with the FAI report number noted. (I.e. "FAI Part Report # 123456"). Identification shall not degrade the appearance of the part. The identification may take the form of an attached tag or the item may be placed in a bag with the bag identified. Subsequent FAI's must be performed under the following conditions:

- a. major engineering changes (configuration changes affecting fit, form or function) require supplemental FAI or delta FAI for characteristics affected by the change;
- b. if major changes are made in the suppliers method of manufacturing.

Suppliers lacking a documented FAI process may request from VT Volant a copy of its FAI process and FAI Report Form.

**QR7 Traceability:** Supplier must maintain lot and batch control of raw materials to purchased items. Supplier must provide positive traceability of manufactured parts or assemblies to raw materials through the use of lot/batch or serial numbers. Aftermarket (used) hardware must be traceable back to the aircraft from which it was removed and a non-incident report/statement must be provided.

**QR8 VT VOLANT Source Inspection:** VT VOLANT source inspection is required prior to shipment. The supplier must notify the VT VOLANT Purchasing Representative three (3) days in advance of inspection. Supplier must, upon request, provide a copy of the purchase contract to the VT VOLANT representative serving their plant. Evidence of VT VOLANT source inspection must accompany each shipment of product. In the event of a waiver of source inspection and in accordance with the above, a Source Acceptance Waiver Shipment Authorization form must accompany each applicable shipment of product.

**QR9 Fastener Quality Act:** All Safety Critical "aerospace standard fasteners" manufactured or used in an assembly or detail must comply with the Fastener Quality Act. Specific compliance to this act must be clearly shown on the COC.

**QR10 Manufacturing and Inspection of Hardware Produced from Electronic Media:** Part is to be manufactured in accordance with customer furnished electronic media. Unless otherwise noted, all dimensions are to be +/- .030 inches of the dimensional feature defined in the electronic model. For each manufactured part all dimensions must exhibit repeatable compliance to the model. In addition to monitoring manufacturing methods, which ensure compliance to the electronic data, inspection of the completed hardware must ensure conformance to all criteria (including dimensional) specified on the engineering drawing.

**QR11 FAI of Hardware Produced from Electronic Media:** First Article Inspection (FAI) is required to ensure compliance to customer furnished electronic media. FAI of hardware produced from electronic media, such as a CATIA model shall consist of verification of compliance to electronic data by independent verifiable methods. Acceptable methods of FAI include measurement by Coordinate Measuring Machine (CMM), a fit-check of the completed item to corresponding hardware from the next assembly level, comparison to a transparency or Mylar sketch of the article or other similar methods approved by VT VOLANT. In addition, a FAI report must document the methods of verification. The report shall also reference any specific dimensional or other requirements from the engineering drawing and the actual corresponding measurement or value associated with the requirement.

**QR12 Electrical Wiring Instructions:** The following requirements apply, 1) All loose parts that accompany a wire bundle must be combined into one bag with a label identifying those parts, and then placed in the bag containing the wire bundle. 2) All wire bundles with connectors require protection of the connector (i.e., plastic bag) before shipping. 3) Coil wire bundles without twisting the wire end (last 12 inches) around the coil, use lacing to secure the coil in place. 4) Metal tie wraps or any lacing containing metal is not allowed. 5) Hot stamp method of marking wire is not allowed. 6) All wire substitutions per Boeing Chapter 20, must be approved by VT Volant Engineering.

**QR13 FAI of Hardware Manufactured Using Controlled Models:** VT VOLANT Engineering Approved Reduced Inspection Criteria may be employed as a method of verification for vendor parts manufactured using controlled models. The following features must be verified and documented on the vendors FAI report.

- All hole sizes
- All hole edge margins (center of hole to edge of part)
- Hole to hole dimensions
- Overall length, width and thickness

A note on the FAI must identify that this method of inspection has been used.

**QR14 AS 9102 FAI:** First Article Inspections of product must be performed and documented to the requirements of AS 9102 Latest Revision.

**QR15 Appearance Item:** In addition to any appearance or aesthetic requirements that may be noted on the engineering drawing, the item must meet visual inspection criteria as defined in the appropriate section of Q-IC-826 (Cosmetic Inspection Criteria for Cabin Interior Items) In the event of a conflict between the engineering drawing and Q-IC-826, the drawing takes precedence.

**QR16 FAA Form 8130-3:** Each part requires an individual FAA 8130-3 Authorized Release Certificate.

**QR17 Direct Ship Authorization:** Supplier has been granted Direct Ship authorization in accordance with SAE ARP9114: Direct Ship Guidance for Aerospace Companies.

**QR18 International Trade in Arms Regulations (ITAR Compliance).** The supplier must maintain an ITAR compliance program, including Directorate of Defense Trade Controls (DDTC) registration in accordance with 22 CFR 120-130.]