

**1.0 PURPOSE**

This document provides a set of Quality Assurance (QA) requirements (clauses) for use in specifying the level of quality control Buyer will exercise over Sellers on procurements.

**2.0 DEFINITIONS**

- A. Buyer – The party to the Purchase Agreement acquiring the materials, parts, assemblies, subassemblies, systems, subsystems or services in accordance with the provisions of the Purchase Order.
- B. Seller – The party to the Purchase Agreement supplying materials, parts, assemblies, subassemblies, systems, subsystems or services in accordance with the provisions of the Purchase Order.
- C. Purchase Order and/or Order – The document(s) that details the entire purchase agreement. These may include procurement documents such as contract work orders, purchase agreements and referenced documents such as drawings, specifications, and statements of work.

**3.0 GENERAL**

The Seller (also referred to as Seller) is responsible for managing their organization, as well as their entire supply chain, to ensure compliance to all Buyer requirements as contained in the Purchase Order, Drawings, Specifications, Electronic Files, and this document. In case of any conflict with this document and any other requirements, the order of precedence shall be:

- 1) Buyer Purchase Order
- 2) Drawings, Specifications, and/or Electronic Files
- 3) This Document

**4.0 APPLICABILITY**

The requirements contained in this document shall apply to all Sellers whenever these Supplier Flow Downs are invoked by Purchase Order. Excluded are Sellers of stationary supplies, janitorial services, etc.

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**4.1. The Following Items are Applicable to All Purchase Orders:**

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**A. Seller Qualification**

All Sellers shall be qualified in accordance to the Buyer qualification process. Sellers will be asked to complete a Seller Questionnaire and/or successfully pass an onsite audit conducted by Buyer. The Seller shall allow Buyer personnel access to perform an on-site survey for qualification with the understanding that the Seller reserves sensitive and proprietary information.

**B. Right of Entry**

The Seller shall provide, if required, a US Government, Foreign Government, Commercial Customer, Regulatory Authority (i.e., FAA) and/or Buyer Quality Assurance personnel appropriate for the specific contract and customer, right of entry/access to any of the Seller's facilities where any work is being performed. Access shall allow for inspection and surveillance to verify conformance to requirements, determine and verify quality of work, records, and materials, validation of procedures to specified requirements of the contract, witness Seller's performance of acceptance inspection and tests, and surveys and audits.

**C. Quality System Compliance**

The Seller shall establish and maintain a system that complies with applicable industry or regulatory standards for the work to be performed and is deemed acceptable by Buyer Quality Assurance. The seller shall ensure that Seller personnel are aware of their contribution to product or service conformity, including their contribution to product safety and the importance of ethical behavior.

When registered by a third party approval process, (i.e., AS9100, AS9110) and/or certified by a regulatory agency (i.e., FAA FAR Part 21 PMA, Part 145 Repair Station, etc.) a copy of certificate shall be forwarded to Buyer, including renewals and/or updates. The Seller is responsible for informing Buyer when there are changes to the approval status.

**D. Seller Assistance**

In the event that requirements are not completely clear, or where special assistance is needed Buyer will provide personnel to consult with the Seller. All communication and request for assistance shall be made via the Buyer Purchasing Department.

**E. Record Retention**

The Seller shall maintain all records that provide objective evidence of compliance to the Purchase Order requirements and/or specifications. The records shall be retained for a period of seven (7) years after completion of the Purchase Order unless otherwise required by the Purchase Order. Such records shall be made available upon request.

#### F. Responsibility for Conformance

The Seller is responsible for furnishing products and/or services which conform to the requirements of the Purchase Order regardless of the surveillances, inspections and/or tests made by the Buyer, the Buyer's customer, or the Government or their representatives at either Seller's premises or at the Buyer's premises.

#### G. Nonconforming Materials

Seller shall not make decisions to accept nonconforming items detected at the Sellers premises as the Seller does not have material review board authority (see exception). Material which fails to meet the requirements and/or specifications referenced on the Purchase Order shall not be shipped without prior written approval by Buyer. A copy of the approval shall be enclosed with each shipment made against the Purchase Order. If Seller has, convincing reason(s) for use as is or repair disposition, Seller shall report the nonconformity to Buyer Quality Assurance, through the applicable Buyer Purchasing Representative, and provide controls for the identification, documentation, and segregation of the nonconforming item until Buyer evaluates the proposed disposition and provides such disposition to the Seller. Additionally, the Seller shall report any conditions under which product malfunctions, defects or unairworthy conditions have been detected and report to all concerned upstream and downstream stakeholders within the Buyer supply chain.

Exception: If the Seller is a sole source manufacturer of a proprietary product, the Seller may retain material review board authority for their proprietary product, however; the Seller must provide written notification of changes to drawings, processes, materials, and procedures to the Buyer prior to delivery of the product.

#### H. Corrective Action

The Seller's quality control system shall provide means for ready detection of discrepancies and for prompt and effective corrective action.

#### I. Deviations and Substitutions

No deviations and/or substitutions in material, design, specifications, or operating performance are permissible without prior written approval from the Buyer. Written approval to the Seller must be provided to the Seller through a change in the Purchase Order.

The Seller shall ensure that the parts being provided are the exact parts being ordered. In addition, all certifications and/or documents being provided shall contain, as the primary number, the exact part number being requested on the PO. **For example:**

PO Line 1: M9177/1-1

Seller Certification/Documentation/Label: M9177/1-1 (MFG P/N XABC-1)

Buyer Purchase Order calls for Seller to supply M9177/1-1. The Sellers certification, documentation, labeling, etc., **MUST** have M9177/1-1 as the primary number listed. If the part has a manufacturer specific part number for this item, it may be listed, however; it shall never serve as the primary number unless it is specifically requested on the PO.

#### J. Counterfeit Parts

The Seller shall implement Counterfeit Parts Detection and Avoidance Systems (Reference DFAR 252.246-7007 for definitions). The Seller shall only deliver new and authentic product to the Buyer. The Seller shall maintain electronic part traceability tracking of the supply chain back to the original manufacturer, whether the electronic parts are supplied as discrete electronic parts or are contained in assemblies (Reference 252.246-7007). Seller shall utilize only the original manufacturer or have the express written authority of the original manufacturer or current design activity. Use of any other sources must be approved in advance and in writing by the Buyer.

Counterfeit and suspect counterfeit parts shall not be returned to the Seller or otherwise returned to the Supply chain until such time that the parts are determined to be authentic. When the Buyer becomes aware of (or has reason to suspect that) any electronic part, or end item, component, part, or assembly containing electronic parts has been delivered to the Buyer, they will confiscate and quarantine them, and will report them to the Customer and/or Government Contracting Officer and to the Government-Industry Data Exchange Program (GIDEP). The Seller shall promptly replace such Counterfeit Parts/assembly with parts acceptable to the Buyer, and the Seller shall be liable for all costs relating to the removal and replacement of said parts.

The Buyer reserves all contractual rights and remedies to address grievances and detrimental impacts caused by Counterfeit/Substandard parts. The Seller shall flow down the substance of this clause to all its subcontractors.

#### K. Packaging Requirements

Seller shall be responsible for ensuring that items provided under this Purchase Order are packaged in such a manner that the dimensional integrity is preserved, contamination and corrosion are prevented, and no physical damage occurs or, when specified, that packaging is in accordance with the drawing, specifications, or other applicable Buyer specified requirements.

L. Flow-down Requirements

The Seller shall flow down all quality requirements to all lower-tier suppliers and subcontractors to the extent necessary to ensure that characteristics not verifiable upon receipt are adequately controlled by the Seller's subcontractor.

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**4.2. The following Items are Applicable ONLY When Specifically Referenced in the Order**

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**Element Q100 – Quality Management Systems**

**Q101 General – ANSI/ISO/ASQC – 9001**

The Seller shall maintain an effective Quality Management System in accordance with ANSI/ISO/ASQC 9001, Quality Management System – Requirements.

**Q102 Aerospace – SAE AS9100**

The Seller shall maintain an effective Quality Management System in accordance with SAE AS9100, Quality Management Systems – Aerospace – Requirements.

**Q103 Calibration – ANSI/ISO/ASQ/IEC – 10012**

The Seller shall maintain and Seller's subcontractors shall maintain an effective and accredited Calibration System in accordance with a national or international approved standard(s), such as: ANSI/ISO/ASQ/IEC 10012, 17025, Z540-1 or an equivalent standard approved by the buyer.

**Q104 NADCAP – National Aerospace and Defense Contractors Accreditation Program**

The Seller shall maintain NADCAP approval for special processes being performed on all material being furnished on this Purchase Order.

**Element Q200 – Inspection Requirements**

**Q201 Government Source Inspection**

Government Source Inspection/test is required prior to shipment from your facility. Upon receipt of this order the seller shall immediately notify the government representative who services your facility so appropriate planning for government inspection can be accomplished. If a government representative does not service your facility, contact the Defense Contract Management Command (DCMC) for direction.

**Q202 Buyer Source Inspection**

Buyer source inspection/test is required prior to shipment from your facility. Notify the applicable Purchasing Representative five (5) working days in advance of the date when material is ready for inspection/test. If the material is not ready for Buyer review when called for, the Seller may be liable for all expenses incurred by Buyer surveillance personnel. Inspection at the Seller's facility does not guarantee final acceptance at Buyer> unless otherwise specified on the purchase order.

**Q203 First Piece Inspection**

Seller first piece inspection is required. Seller shall clearly identify and furnish the first deliverable product, and a complete inspection report for that product, to the Buyer for inspection. Seller shall ensure the first piece conforms to all drawings, specifications and specified requirements of the Purchase Order, and that the first piece is a representative of the production materials, processes, production equipment and inspection equipment that is intended for use to produce the contracted quantity and verified by qualified personnel.

Seller may, at their own risk, continue to manufacture additional items prior to notification of inspection results, however; no production lots shall be shipped to the Buyer until written approval of the first piece is received from Buyer Quality Assurance via the Buyer's Purchasing Representative. Buyer's acceptance of Seller's first piece part does not guarantee acceptance of the production lot.

**Q204 First Article Inspection (FAI) (AS 9102)**

Seller first article inspection is required. The first production piece must have a complete 100% First Article Inspection performed, and documented, to become part of the First Article Package to be submitted to the Buyer for review/approval prior to continuation of production. The First Article Package must consist of; the first production piece (segregated and identified as being the FAI part(s)), a documented inspection report containing each characteristic of the production piece, material certifications, and special processing certifications. When the item being delivered is an assembly or subassembly, the first article inspection shall also include all detailed parts contained therein. Seller shall ensure the first article conforms to all drawings,

specifications and specified requirements of the Purchase Order, and that the first article is a representative of the production materials, processes, production equipment, and inspection equipment that is intended for use to produce the contracted quantity and verified by qualified personnel.

Seller may not continue to manufacture additional items without written authorization from the Buyer. Buyer's acceptance of Seller's first article does not guarantee acceptance of the production lot.

First Article Inspection is required when any of the following occurs:

- The product is new to the Seller.
- There has been a change in the design affecting form, fit, or function of the product.
- There has been a change in numerical control program that can potentially affect fit, form or function.

A lapse in production for more than 12 months.

**Q205 Welding**

The Seller's welding personnel and inspection personnel must be appropriately trained, qualified and certified to the applicable standard(s) called out on the drawing(s) and/or specification(s) for the work to be performed on this Purchase Order. Personnel certification documents shall be supplied to the Buyer upon request.

**Q206 Non-Destructive Test/Inspection (NDT/NDI)**

The Seller's personnel must be appropriately trained, qualified and certified to the applicable standard(s) called out on the drawing(s) and/or specification(s) for the work to be performed on this Purchase Order. Personnel certification documents shall be supplied to the Buyer upon request.

The Seller shall furnish with each shipment, affixed to the product/material being supplied, a copy of the NDT/NDI process certification, clearly identifying the results of the test/inspection, for all items requiring any of the following tests and/or inspections:

- Penetrant
- Magnetic Particle
- Ultrasonic
- Radiographic (must supply film as well)
- Eddy Current

**Q207 Use of Buyer Approved Sellers**

The Seller shall utilize Buyer /Customer/Government approved Sellers for performance of all special processes. The use of Buyer /Customer/Government suggested/approved Sellers does not relieve the Seller of the responsibility for product/service quality.

**Q208 100% Inspection Requirement**

The Seller must perform 100% inspection of all items on this Purchase Order to ensure compliance to drawing and specification requirements. Objective evidence of such inspection must be maintained on file and available for review by Buyer .

**Q209 Drawings**

Seller shall furnish with the first shipment of the Purchase Order, drawing(s) or sketch(s) and specification(s) adequate to permit inspection and/or test of the product. Seller shall ensure that such documentation is controlled and the revision furnished is the latest, valid description of the product.

**Element Q300 – Material and Certification Requirements****Q301 Certified Inspection/Test Data**

Seller shall provide a legible and reproducible copy of all certified inspection/test data, indicating results of all required inspections with each shipment.

**Q302 Chemical and Physical Test Reports**

Seller shall provide a legible and reproducible copy of all original manufacturers' chemical and physical test reports for material procured under this Purchase Order with each shipment. All paperwork must be traceable per material lot number and/or purchase order numbers.

**Q303 Certificate of Compliance/Conformance (C of C)**

Seller shall provide a legible and reproducible certification with each shipment to attest that the parts, assemblies, subassemblies, or detail parts conform to the Purchase Order requirements and must be signed

by a responsible company representative. When applicable, the true manufacturer's lot, heat, batch, date code, and/or serial number must appear on the certification. The certificate of conformance must contain:

- Name and Address of Seller
- The Purchase Order number and line item number.
- The part name, part number (and revision number if applicable) and quantity shipped.
- The serial number for serialized items and/or lot number for lot controlled items.
- A conformance statement that all Purchase Order and/or specification requirements have been met.

**Q304 Certificate of Calibration (Inspection, Measuring, and Test Equipment)**

Seller shall furnish, with each item shipped, a legible and reproducible certificate of calibration signed by a responsible company representative and shall be traceable to the individual item tested and shall include the Buyer's part number, serial number, and Purchase Order number for each item being shipped. The Seller's calibration certificate shall include a unique tracking number, tolerance range, and when applicable, environmental condition for each parameter calibrated. The certificate shall also state the operating error per specification, the degree of correction of out of tolerance condition and remaining uncorrected out of tolerance condition, if applicable.

**Q305 Safety Data Sheet (SDS)**

Seller shall furnish a Safety Data Sheet (SDS) for the material being provided. The Safety Data Sheet must accompany each shipment of material.

**Q306 Special Process Certification**

Seller shall ensure that special processes (e.g. heat treat, soldering, welding, anodizing, chemical film treatment, NDT, etc.) are performed only by sources that have been surveyed and qualified/approved, by the Seller and/or the Buyer, to perform those processes. The Seller shall provide to the Buyer upon request all documentation showing evidence of special processor qualification and/or certification to perform special manufacturing, assembling, and/or test processing as required by the Purchase Order or specifications. The Seller may elect to utilize sources already approved by the Buyer for the applicable special process.

A special process certification, signed by a responsible company representative, shall be provided with each shipment of item(s) delivered. Special process certifications shall include the following:

- The Purchase Order number and line item number.
- A statement that the process was performed per the applicable drawing/specification requirements.
- Part number(s), serial and/or lot number(s), of the item processed.
- Material process specification and revision.
- Type and/or Class of application, if applicable.
- Objective evidence demonstrating compliance with the applicable process (i.e. temperature charts and hardness test results for heat treatment, destructive test results, etc.)
- Seller's name and address, and if performed by someone other than the Seller, the name and address of the organization performing the process.

**Q307 Life Limited and Age Controlled (Shelf Life) Items**

Seller shall provide all pertinent shelf life data with each shipment. Seller shall ensure that at least 90% of the material's shelf life is remaining upon delivery to the Buyer. Seller shall ensure that all materials which are harmful to human health and/or property are contained in accordance with applicable regulatory specifications.

**Q308 Certification of Solderability**

Seller shall provide applicable solderability certification from the Manufacturer that electronic parts/components furnished on this Purchase Order meet the requirements of approved and accepted joint industry standards..

**Q309 Electrostatic Discharge (ESD) Sensitive Devices**

Seller shall maintain an ESD program that is appropriate to protect electrical and electronic parts, assemblies and equipment during all stages of handling, storing, packaging, preservation and delivery of such parts. Seller shall properly package and identify all items and will place them in conductive or static-dissipative packages, tubes, carriers, bags, etc. The packaging must be clearly labeled to indicate that it contains electrostatic sensitive goods.

**Quality Assurance Clauses v3****Q310 Raw Material Traceability (Sheet, plate, rod, bar, tube, extrusion, etc.)**

Seller shall mark each individual item and applicable documentation to show material type or designation, material specification and temper, as well as clear traceability to lot, heat lot, or batch number. All items shall be identified by continuous stenciling (not to exceed 12 inches), of sufficient size, to be readily legible, applied by permanent ink or dye of contrasting color, non-injurious to metal surfaces and not soluble in cutting and coolant oils.

In cases where marking requirements cannot be met, such as rod, bar and tube with a cross section smaller than ½ inch, the items shall be bundled together. Each bundle shall contain only those materials from the same manufacturer batch, and shall be marked with an adhesive label or tag permanently marked with all the aforementioned data.

**Q311 Parts Traceability (NAS, AN, MS, etc.)**

When the Seller is a distributor – The Seller shall ensure, and certify as such, that the part(s) being provided comply with all the requirements of the Purchase Order; and the manufacturers certification and/or chemical/physical test reports are on file and available for review by the Buyer and/or customer quality assurance representative upon request.

Each lot shall be packaged in a manner that ensures there will be no co-mingling of like parts from different lots in the same container.

Each interior/individual package shall be identified with, at a minimum, the lot number, part name, part identification number, Purchase Order number, project number and name of fastener manufacturer.

(Pay particular attention to “Deviations and Substitutions” in section 4.1)

When the Seller is the fastener manufacturer – The Seller shall ensure, and certify as such, that the part(s) have been manufactured in accordance with requirements of the applicable NAS, AN, MS, etc., government approved Parts Standard and Procurement Specification; and the certifications and/or chemical/physical test reports are on file and available for review by the Buyer and/or customer quality assurance representative upon request.

Each lot shall be packaged in a manner that ensures there will be no co-mingling of like parts from different lots in the same container.

Each Package shall be identified with, at a minimum, the lot number, part name, part identification number, Purchase Order number, and name of fastener manufacturer.

(Pay particular attention to “Deviations and Substitutions” in section 4.1)

**Q312 REQUIREMENT FOR AIRWORTHINESS CERTIFICATION (FAA)**

Seller shall ensure that the parts and/or material being provided conform to the airworthiness requirements mandated by the Federal Aviation Administration, U.S.A. (FAA). FAA Conformity Certification is required for parts and/or material specified on this Purchase Order and a true copy of FAA Form 8130-3, Release Certificate Approval Tag, for Airworthiness shall be included with each shipment

When the parts and/or material being provided are from a foreign government, it must be from a country with which the United States of America has an active Bilateral Airworthiness Safety Agreement (BASA) in place for the item(s) being provided. An equivalent to FAA Form 8130-3 from the importing country’s Civil Aviation Authority (CAA) is acceptable in this instance.

NOTE: For a list of countries with a United States Bilateral Airworthiness Safety Agreement in place, consult FAA Advisory Circular (AC) 21-18 and AC 21-23.