



50220 AS9100 Supplier Flow Down Requirements

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1.0 Purpose

This document describes the general and special product assurance requirements that are in addition to the requirements in the Diamond Technologies Innovations Purchase Order and Terms and Conditions. The requirements specified herein will be used by Diamond Technologies Innovations and will be available through the Purchase Order, Contract, or other formal agreement (hereafter referred to as the Contract) between a Supplier and Diamond Technologies Innovations. The purpose of this document is to clearly define for each purchase of products or services, all the necessary and applicable technical and quality requirements with which the Supplier must comply to meet the requirements of Diamond Technologies Innovations, Inc., its customers and/or regulatory authorities.

2.0 Scope

The Supplier requirements below apply to all Suppliers and sub-tier Suppliers to Diamond Technologies Innovations providing raw materials, manufactured components and products as well as performing material processing such as, but not limited to: heat treating; chemical processing; surface enhancements; non-destructive and destructive testing; coatings; welding; and nonconventional machining processes for Aerospace products. Acceptance of a Purchase Order from Diamond Technologies Innovations binds the Supplier to the Terms and Conditions listed in the Purchase Order and the requirements listed in this document. The Supplier is not authorized to outsource any portion of the Purchase Order requirements unless specifically authorized by Diamond Technologies Innovations and must flow down these requirements to any sub-tier Suppliers. Note that these requirements correspond with the requirements of Diamond Technologies Innovations customers and with the requirements of AS9100D, Clause 8.4.3.

3.0 Supplier Responsibilities

3.0.1 The processes, products, and services to be provided including the identification of relevant technical data (e.g., specifications, drawings, process requirements, work instructions)

- Refer to Diamond Technologies Innovations Purchase Order and / or the Acknowledgement provided by Supplier.

3.0.2 The approval of: products and services; methods, processes, and equipment; the release of products and services.

- Each shipment must be accompanied by one legible copy of a statement of conformance unless otherwise noted in the Purchase Order.
 - a. A certificate of conformance (C of C), supplied with the shipment must provide at a minimum: Supplier name, part number, purchase order number, quantity of parts, engineering revision, serial numbers (if applicable), and title and name of authorized Supplier representative.
 - b. Material certifications shall show quantitative analysis of each element and physical testing. Traceability for Raw Material is required and shall be retained and provided to Diamond Technologies Innovations with product.

3.0.3 Competence, including any required qualification of persons.

- Supplier will ensure that employees and people working on its behalf are competent and trained in accordance with the requirements of AS9100D.

3.0.4 The Supplier's interactions with the Diamond Technologies Innovations.

- In addition to the other requirements recorded within this document, Suppliers shall hold all information received from Diamond Technologies Innovations in confidence and no third-party request for information will be authorized unless approved, in writing, by Diamond Technologies Innovations.

3.0.5 Control and monitoring of Supplier's performance to be applied by Diamond Technologies Innovations.

- Diamond Technologies Innovations will score Suppliers based on Quality, Delivery, and Service. Suppliers that fail to perform in these areas may receive Corrective Actions and may be considered for probation or removal from Diamond Technologies Innovations Approved Supplier List.

3.0.6 Verification or validation activities that Diamond Technologies Innovations, or its customer, intends to perform at Supplier's premises.

- Diamond Technologies Innovations and its customers reserve the right to perform verification and/or validation activities at the Supplier's premises.

3.0.7 Design and development control.

- Design and development control does not apply to Diamond Technologies Innovations Suppliers, unless otherwise specified on our PO.

3.0.8 Special requirements, critical items, or key characteristics.

- As per the requirements of AS9100D, Supplier is responsible for the validation, and periodic revalidation, of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement.

3.0.9 Test, inspection, and verification (including production process verification).

- For calibration Purchase Orders, all gauges and instruments must be calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technology (NIST).
- Supplier will maintain a quality/inspection system that will ensure all goods and services conform to contract requirements whether manufactured or processed by Supplier or procured from Sub-Tier Suppliers.
- All vendors providing Calibration Services must:
 - Maintain Certification to ISO17025 (or equivalent)
 - Provide reporting of "As Found" and "As Left" status if the item is found to be out of tolerance.
 - Utilize Calibration Standard traceable to NIST.
 - Provided calibration certifications must specifically state NIST traceability.

3.0.10 The use of statistical techniques for product acceptance and related instructions for acceptance by Diamond Technologies Innovations.

- Refer to Diamond Technologies Innovations Purchase Order and / or the Acknowledgement provided by Supplier.
- Sample inspection shall be performed in accordance with an industry standard sample plan. The Accept criteria shall be zero defects. If a defect is found, a 100% inspection for the failed characteristic will be conducted for the lot.

3.0.11 The need to:

a. implement a quality management system.

When specifically requested by Diamond Technologies Innovations in writing, Supplier will maintain a quality system in compliance to AS9120, a recognized

Quality Management System and/or approved by Diamond Technologies Innovations.

b. use customer-designated or approved external providers, including process sources (e.g., special processes).

When required by Diamond Technologies Innovations or by Diamond Technologies Innovations customers, Suppliers will use customer specified sources.

3.0.12 Nonconforming products & material review:

- Notify Diamond Technologies Innovations of nonconforming processes, products, or services and obtain approval for their disposition.

3.0.13 Identification, Segregation & Control

- Any products found to be nonconforming to provided drawings, specifications, contract, or other applicable requirements either by the Supplier or the Supplier's sub-tier sources, shall have written approval from Diamond Technologies Innovations and be identified, segregated, and reworked or replaced with conforming products prior to delivery to Diamond Technologies Innovations.
- Diamond Technologies Innovations reserves the right to reject and return any nonconforming products to the Supplier at the Supplier's expense.

3.0.14 Supplier Material Review Authority

- Unless the Supplier is granted Material Review authority by inclusion of a written Quality Assurance Approval, all nonconforming material shall be submitted in writing to Diamond Technologies Innovations for disposition.

3.0.15 Supplier Notification of Nonconforming Products Delivered to Diamond Technologies Innovations.

- When the Supplier has determined that nonconforming product(s) have been delivered to Diamond Technologies Innovations, the Supplier shall notify Diamond Technologies Innovations within twenty-four (24) hours of the initial discovery.
- The Supplier shall use receipt acknowledged e-mail or other positive notification method.

3.0.16 Re-Submittal of Products Previously Rejected by Diamond Technologies Innovations.

- Products returned to the Supplier by Diamond Technologies Innovations and re-worked or replaced by the Supplier and re-submitted to Diamond Technologies Innovations shall be clearly identified as re-submitted products.

3.0.17 Rejection

- Any product failing to meet the required criteria may upon inspection, be rejected, and returned to the supplier. An engineering and quality evaluation will be required on any non-conforming part to determine whether the part can be re-worked or processed as a Use As-Is item.
- When a Root Cause / Corrective Action is required for rejected product it shall be submitted to Diamond Technologies Innovations within the time specified on the Corrective Action Request. If additional time is required, an extension may be requested by contacting the Diamond Technologies Innovations. The corrective action shall address containment, root cause analysis, mistake proofing and corrective action. Corrective actions not answered shall be grounds for removing your approved vendor status.

3.0.18 Prevent the use of counterfeit parts.

- To prevent the purchase of counterfeit or suspect / unapproved products and to ensure product identification and traceability (and for other reasons), Supplier shall develop a counterfeit parts program using AS6174 and/or AS5553 as a guide.

3.0.19 Notify Diamond Technologies Innovations of changes to processes, product changes, substitutions, repairs, salvage, or services, including changes of their external providers or facility location changes of manufacture, and obtain Diamond Technologies Innovations approval.

- During performance on the Contract, the supplier shall give written notice to Diamond Technologies Innovations before relocating and production, inspection or processing facilities; or, transferring work between different facilities; or, when applicable, prior to initiating any changes in the source of major components procured by the supplier and designated for use in or for installation on products scheduled for delivery to Diamond Technologies Innovations or, making any other changes which may affect product quality, reliability or integrity.
- Supplier will notify Diamond Technologies Innovations of any product or process changes or changes in approval status that affect Diamond Technologies Innovations product and are subject to re-survey and approval.
- The Supplier may not make any changes or substitutions to any products or services required by the Contract, drawing, specification, standard, or other applicable document without prior written authorization by Diamond Technologies Innovations. Authorization may be contingent on Diamond Technologies Innovations conducting an on-site review of the proposed product or service changes at the Supplier's facilities, or the facilities of the Supplier's sub-tier sources.

3.0.20 Flow down to external providers applicable requirements including customer requirements.

- Suppliers shall flow-down to Sub-Tier Suppliers the applicable requirements as required by the purchase order either specifically or by reference.

3.0.21 Provide test specimens for design approval, inspection/verification, investigation, or auditing.

- When requested by Diamond Technologies Innovations or its customers, Supplier will provide test specimens for inspection/verification, investigation and/or auditing purposes.

3.0.22 Inspection Documentation

- Inspection documentation shall be available for all lots of material purchased by Diamond Technologies Innovations and shall include required certifications and tests. These documents required by the purchase order shall be submitted with each lot shipment.

3.0.23 Retain documented information, including retention periods and disposition requirements:

- Unless otherwise specified on the Purchase Order, the latest specification revision in effect at the time the lot of raw material/parts was originally manufactured or processed shall apply.
- In the event a document has been superseded, the latest revision of the superseding document shall apply.

- All certifications, test reports, and inspection reports, as well as receiving inspection, in-process inspection, final inspection, and calibration records shall be retained for a minimum of eleven years after close of the purchase order, unless otherwise specified by Diamond Technologies Innovations.
- Where FLIGHT SAFETY is a contract requirement all records pertaining to the processing must be maintained for 40 years after close of the purchase order. These records will be made available to Diamond Technologies Innovations, Diamond Technologies Innovations customers, or regulatory agency upon request.

3.0.24 Prevent Foreign Object Debris

- Supplier is required to establish and maintain a Foreign Object Debris (FOD) prevention program per the requirements of NAS-412. Suppliers FOD prevention program shall include the review of design and manufacturing processes to identify and eliminate foreign object entrapment areas and paths through which foreign objects can migrate.
- Supplier shall ensure work is accomplished in a manner preventing foreign objects or material in deliverable items.
- Supplier shall maintain work areas and positive control of tools, parts, and materials in a manner sufficient to preclude the risk of FOD incidents. Supplier shall document and investigate each FOD incident and ensure elimination of the root cause of each incident.

3.0.25 The right of access by Diamond Technologies Innovations, Diamond Technologies Innovations customer, and regulatory authorities to the applicable areas of facilities and to applicable documented information, at any level of the supply chain.

- Diamond Technologies Innovations and Diamond Technologies Innovations customers reserve the right to perform an on-site inspection of the Supplier's facility. Diamond Technologies Innovations will give reasonable notification to the Supplier prior to the on-site inspection.
- The on-site inspection may include surveillance of the Supplier's facilities, procedures, production methods, processes, and the Supplier's Quality System.
- The Supplier shall furnish, at no cost, the necessary data as required by applicable drawings, Purchase Order, specifications, and inspection instructions to facilitate the on-site inspection.

3.0.26 Ensuring that persons are aware of: their contribution to product or service conformity; their contribution to product safety; the importance of ethical behavior.

- Supplier must be committed to the highest standards of ethics and business conduct. Supplier must comply with the law, honor commitments, act in good faith, and be accountable. Supplier must strive to maintain full compliance with all laws and regulations applicable to the operation of the business and customer relationships.
- Supplier will avoid involvement in activities that may be perceived as a conflict-of-interest.
- Supplier will respect the legitimate proprietary rights and intellectual property rights of customers and Suppliers and take proper care to protect sensitive information, including confidential, proprietary, and personal information.
- Supplier will support product safety by ensuring robust management of special requirements, critical items, and key characteristics.
- If there are concerns with respect to product safety, Supplier will communicate them to Diamond Technologies Innovations.

- If there is a concern at the Supplier's premises with respect to safety during the manufacture of the product, Supplier will notify its own employees of the concern and whenever possible, mitigate the concern.
- Supplier will ensure that employees and people working on its behalf are aware of:
 - A. Follow the Supplier's Code of Conduct regarding forced labor and human trafficking.
 - B. Certify the materials incorporated into their product comply with all applicable laws regarding human trafficking of the country or countries in which they are conducting business.
 - C. To take appropriate corrective measures if human trafficking is found within the suppliers' operations and enforce disciplinary action, including, but not limited to, termination of business relationships if suppliers do not take appropriate corrective measures.
 - D. Their contribution to product safety.
 - E. The importance of ethical behavior.
 - F. Their contribution to product or service conformity.

3.0.27 Use of Non-Conventional Manufacturing Methods.

Unless required by the drawing, specification, or Contract, the Supplier may not use Electrical Discharge Machining (EDM), Electro Chemical Machining (ECM), laser, or abrasive water jet cutting or drilling, flame spray coatings, or any other non-conventional manufacturing method or process on products scheduled for delivery to Diamond Technologies Innovations without prior written authorization by Diamond Technologies Innovations. This prohibition also applies to the use of such processes by the Supplier's sub-tier sources.

3.0.28 Altering Data on Documents.

The use of any method that causes the original data on documents to be obliterated and unreadable (i.e. the use of correction fluids, correction tape, write-over, or other methods) to correct, modify or otherwise alter the data and/or entries on any certifications, test reports or other documents required by the Contract, is strictly prohibited.

3.0.29 Special Process Suppliers.

Special process suppliers must hold active NADCAP accreditations(s) for the special process performed, regardless of tier.

3.0.30 Electrical Soldering.

Electrical/Electronic soldering shall be performed per J-Std-001. Personnel performing soldering shall be trained per J-Std-001.

3.0.31 Contract Changes & Their Effectivity.

A. Diamond Technologies Innovations Initiated Changes.

- The Supplier shall incorporate, at the specified and agreed upon effectivity points, all changes initiated by Diamond Technologies Innovations and communicated to the Supplier through a formal Contract change and/or amendment.

B. Supplier initiated; Source Controlled & Non-Source Controlled Products.

- No changes in product design, drawings, specifications, materials, or processes are permitted without prior approval by Diamond Technologies Innovations.

3.0.32 Certifications/Documentation

A. Delivery Certification.

- By delivering products or services to Diamond Technologies Innovations required by the Contract, the Supplier certifies that such products or services are in compliance with all applicable requirements of the Contract, and objective evidence of compliance is available and will be furnished within 48 hours to Diamond Technologies Innovations for review upon request.

B. Certification Language & Content.

- The Supplier is responsible to ensure that all certifications furnished by the Supplier, or by the Supplier's sub-tier sources, are complete, legible, and reproducible, accurate and in compliance with all Contract requirements.
- All certifications shall be in the English language and as a minimum include the following information and data:
 1. name and address of the issuing organization (Supplier and/or Supplier's sub-tier source)
 2. part number and revision.
 3. quantity processed and/or delivered
 4. lot or batch number (when applicable), Heat Codes
 5. Diamond Technologies Innovations Contract number / purchase order number
 6. title and signature that meets the requirements of 3.0.34 and 3.0.35, of the authorized official of the issuing organization.
 7. certifications issued by Supplier's sub-tier sources shall include information and data required by (1), (2), (3), (4), and (6) above.

3.0.33 Acceptable & Authorized Signatures.

- All certifications and test reports shall include the title and acceptable signature of the authorizing company official and shall be actual signatures rendered in ink, facsimiles of signatures such as a rubber stamp, or machine or computer graphics generated facsimile signatures.
- The title of the authorizing company official may be in a printed or handwritten format.
- When quality or inspection stamps are used in lieu of actual signatures, such stamps shall clearly identify the issuing organization and the authorized individual to whom the stamp is assigned.
- The issue, use, and control of such stamps shall be governed by documented procedures in the Supplier's Quality Management System.
- The use of electronic signatures on electronic documents is up to the supplier but must be under the direct control of the person whose name appears on the document, governed by documented procedures in the QM System and may only be applied at the location or facility where the individual is located.

3.0.34 Packaging

- Parts shall be packaged in such a manner that no damage shall occur during the shipping process.
- Parts should be packaged such that they cannot contact other parts and will not break out of the shipping container.
- Packaging shall protect parts from FOD.

3.0.35 Delivery

- Delivery of products shall meet the PO shipping methods and be adequate for the Product being shipped.