

## **Quality Clauses**

QA-1 Quality Management Systems - The Supplier will as a minimum maintain and implement a documented quality management system to AS9100, ISO9001, EN9100 and/or JISQ 9100 (AS/EN/JISQ 9120 is acceptable for stock lists/distributors). This QMS shall be certified by an accredited Certification Body (CB), the CB shall be accredited under the control of the International Aerospace Quality Group (IAQG) certification/registration outlines, as recognized by SAE AS/EN/JAC 9104/1. Reference the IAQG website for a listing of accredited CB's. As part of the Quality Management System the Supplier shall provide and maintain an inspection system that complies with all the specifications stated in the Long Term Agreement, Standard Terms and Conditions TAF-40308 and/or Purchase Order. This system is subject to review by NWI Nashville, LLC Supply Chain and /or NWI Nashville, LLC Quality Assurance.

Suppliers shall notify NWI Nashville, LLC Purchasing Representative within three working days of any change in its quality system status or change in quality organization, loss of registration/certification or notification of loss of registration/certification of Quality System approvals or Customer process approvals including NADCAP. Supplier shall also notify NWI Nashville, LLC of any change in process or procedures that affects conformity of any item or adverse action taken by Suppliers customer, the Government, the Federal Aviation Agency ("FAA"), or the Civil Aviation Agency ("CAA") to include any of the following:

- 1. Issuance of a Corrective Action Request ("CAR") associated with Buyer Items
- 2. Suspension of Government Source Inspection ("GSI")

This requirement to notify is also applicable to Sub-tier changes and/or loss of registration/certification

Quality Management Systems - Other than AS9100 Suppliers - Suppliers who do not maintain a Quality System certified to AS9100, ISO9001, EN9100 and/or JISQ 9100 and/ must maintain documented procedures that address the following:

- 1. Identification and Traceability
- 2. Control of Nonconforming Material
- 3. Control of Customer Property
- 4. Process Control
- Calibration System shall be compliant to one or more of the following: ANSI/ISO/IEC 17025-2017 (ANSI/NCSL Z540.1-1994), ANSI/NCSL Z540.3-2006, ISO 10012:2003, and/or Mil-Std-45662A.
- 6. Measurement and Monitoring of Product
- 7. Training
- 8. Preservation of Product
- 9. Control of Quality Records
- QA-2 Suppliers not meeting requirements of QA-1 will require approval by NWI Nashville, LLC Supply Chain and /or NWI Nashville, LLC Quality Assurance.

Certifications – This clause is not applicable to Suppliers of calibration or test services.

A certificate of conformance shall accompany each shipment and include a statement that the product provided meets the controlling Engineering and Purchase Order requirements. The C of C shall also contain the following information:

- 1. Supplier Name and address
- 2. NWI Nashville, LLC Purchase Order Number
- Identifying Part Number and revision level
- 4. Quantity of items delivered
- Production Lot or Job Number
- 6. Serial Numbers (if applicable)
- 7. Raw material certification numbers or lot numbers traceable to the manufacturer and raw material source
- 8. For any special process performed in the manufacture of the items by the NWI direct supplier, identify the special process name and type, specification number and revision level. If item is sub-tiered by NWI direct supplier and performs any special process, include the sub-tier special process name and type, specification number, and revision level.
- 9. Authorized Supplier Representative, name or stamp and signature.
- 10. If applicable, NWI Nashville, LLC Source Inspection Stamp and date of inspection
- 11. Name, address and cage code\* of the manufacturer (\*Cage code as stipulated by end customer or governmental requirements please consult with NWI QA for clarification)
- 12. When required, identification of the end Customer on the C of C
- QA-3 Certifications This clause is applicable to product of special processes performed.

A certificate of conformance shall accompany each shipment and include a statement that the product provided meets the controlling Engineering and Purchase Order requirements. The C of C shall also contain the following information:

- 1. Supplier Name and address
- 2. NWI Nashville, LLC Purchase Order Number
- 3. Identifying Part Number and revision level
- 4. Quantity of items delivered
- 5. Production Lot or Job Number



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- 6. Serial Numbers (if applicable)
- 7. Special Process performed
- 8. Test specification and revision level
- 9. Special test results, if applicable (i.e. Rockwell, thickness, etc.)
- 10. Authorized Supplier Representative, name or stamp and signature

#### QA-4 Certifications – This clause is applicable to Suppliers of calibration or test services

The Supplier shall submit for each item calibrated or tested a record of actual results. This information shall be provided with the item or in a method or format agreed with NWI Nashville, LLC. The record shall also contain the following information:

- Supplier Name and address
- 2. NWI Nashville, LLC Purchase Order Number
- 3. Part Identifier
- Equipment type
- 5. Acceptance criteria\*
- 6. Calibration tolerance range
- Identification of all measurements taken, including standard values applied, resulting values obtained and degree of deviation or error
- 8. Frequency and due dates for calibration
- 9. Location of IM&TE
- 10. Calibration and certification method
- 11. Environmental Conditions for each parameter calibrated, if applicable
- 12. Operating error per specification (measurement uncertainty)
- Degree of correction of out-of tolerance condition and remaining uncorrected out of tolerance condition if applicable. (As-Found and As-Left condition)
- 14. Work performed and applicable specifications
- 15. Authorized Supplier Representative, name or stamp and signature
- 16. Identification of standards used with traceability to National Institute of Standards and Technology (NIST)
- 17. Calibration System shall be compliant to one or more of the following: ANSI/ISO/IEC 17025-2017 (ANSI/NCSL Z540.1-1994), ANSI/NCSL Z540.3-2006, ISO 10012:2003, and/or Mil-Std-45662A.

\*Note: When not otherwise specified by PO or explicit instruction from NWI, the acceptance criteria will be based upon the manufacturer's tolerance or industry standard.

QA-5 Raw Material Certifications – Applicable only to product and raw material Suppliers.

A certificate of conformance shall accompany each shipment and include quantitative chemical, physical and mechanical properties used to manufacture the items. The certificate must state that the material supplied meets the applicable specifications. The C of C shall also contain the following information:

- 1. Raw Material Supplier Name, address and country of origin
- 2. NWI Nashville, LLC Purchase Order Number
- Identifying Part Number and revision level
- 4. Quantity of items delivered
- 5. Material Alloy and Temper
- 6. Test Specification and revision levels as applicable
- 7. Mill Lot Number and Lot Number or Purchase Order traceable to the Mill
- 8. Mechanical and Chemical Properties of the material and if applicable any additional special test results
- 9. Authorized Supplier Representative, name or stamp and signature

DFARS Contracts - Prevention of Non-domestic smelting usage – Military Contract Requirements for Specialty Materials procured or produced under DFARS 252.225-7012

Exceptions: DFARS Part 225, paragraph 225.872 <a href="https://www.law.cornell.edu/cfr/text/48/252.225-7012">https://www.law.cornell.edu/cfr/text/48/252.225-7012</a>

Suppliers are prohibited from procuring and using non-domestic raw material that has been melted outside of the United States without written consent from NWI Nashville, LLC Purchasing Representative. NWI Nashville, LLC supplied material will be maintained by NWI Nashville, LLC and is not subject to this clause.

- QA-6 Shelf Life For time and/or temperature-sensitive material, items shall be marked with storage temperature, date of manufacture and shelf life, type of material, lot or batch number, name, quantity and other pertinent information. Material which does not show at least ¾ (75%) of the indicated shelf life will not be accepted. Safety data sheets must be provided.
- QA-7 First Article First article inspection in accordance with AS/EN/SJAC 9102 is required for all new product supplied by Supplier. First Article Inspection reports are required to accompany the delivered items and a copy maintained as a Quality Record by the Supplier. Required elements of all NWI Supplier FAI's are to include as a minimum the following documents:



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- 1. Certification of Conformance
- 2. Material Certification
- 3. Testing and NDT Certification
- 4. Special Processing Certification
- 5. Balloon and/or Bubble Drawings
- 6. CMM Reports (if applicable)
- 7. Purchase Order special requirements\*

\*Note: Any further special requirements from NWI Customer shall be identified in the NWI Nashville, LLC Purchase Order.

Partial or "Delta" First Article Inspection is required when any of the events noted in section 4.6 of AS9102 occur, including changes in production tooling, NC programs (including translation to another media) and item configuration. Delta First Article Inspection reports are required to accompany the delivered items and a copy maintained as a Quality Record by the Supplier.

NWI Nashville strongly recommends the use of Net-Inspect for submittal and approval of First Article Inspection (Full or Delta) in order to support full traceability and ease of future access to FAI's when needed. NWI Supplier upload of their internal FAI into Net-Inspect is acceptable.

- QA-8 Source Inspection/ In-Process Inspection NWI Nashville, LLC reserves the right to have source inspection performed at the Supplier's facility or Sub-tier Supplier's facility prior to shipment. The Supplier or Sub-Tier Supplier shall make available to the source inspector equipment, records or other assistance as required to verify item conformance. The requirement for source inspection or specific inspection point in the process shall be identified on the Purchase Order. Supplier must contact the NWI Nashville, LLC Purchasing Representative prior to all shipments to NWI Nashville, LLC.
- QA-9 Statistical Process Control Key Characteristics identified by NWI Nashville, LLC or by NWI Nashville, LLC Customer drawings shall be monitored and controlled per AS9103. The requirement of SPC shall be identified on the Purchase Order.
- QA-10 Frozen Planning Selected items, processes or manufacturing plans may require qualification or approval by NWI Nashville, LLC or NWI Nashville, LLC Customer prior to production or during FAI. The items and processes requiring this approval shall be identified in the Specification and/or NWI Nashville, LLC Purchase Order. Upon acceptance of the first article, the Supplier shall make no changes to the method of manufacture, equipment used, materials, or processes which may affect interchangeability, function, dimensions, performance, or finishes. All changes must be approved in writing by NWI Nashville, LLC Purchasing Representative.
- QA-11 Pre-production First Part Approval Selected items, processes or manufacturing plans may require qualification or approval by NWI Nashville, LLC or NWI Nashville, LLC Customer prior to production. The Supplier shall submit the first part to NWI Nashville, LLC for inspection verification. The items and processes requiring this approval shall be identified in the NWI Nashville, LLC Purchase Order.
- QA-12 Procedure Approval Selected items, processes or manufacturing plans may require qualification or approval by NWI Nashville, LLC or NWI Nashville, LLC Customer prior to production. The Supplier must submit for review and approval to NWI Nashville, LLC Purchasing Representative, detailed test and inspection methods which will be used to ensure that the requirements of this order have been satisfied. This information shall include the procedures and identification of the description of the equipment to be used. The items and processes requiring this approval shall be identified in the NWI Nashville, LLC Purchase Order.
- QA-13 Parts Identification In addition to drawing requirements, all parts 'purchased complete' must be identified with the part number, manufacture date and NWI Nashville, LLC Purchase Order number or Suppliers Lot number. Any unique part mark requirements will be flowed down by means of NWI purchase order.

Country of Origin Marking - Every article of foreign origin imported into the United States shall be marked with the country of origin in accordance with U.S. Customs regulations 19 CFR 134.

Part Traceability - Outside processors **SHALL NOT** remove serialization tags from parts unless tags interfere with processing. If it is necessary to remove the tag(s) for processing, sufficient measures must be taken to ensure the tags are returned to the proper parts. Special serialization and/or identification requirements will be flowed-down to sub-tier processors by purchase order.

QA-14 Protection of Product against Contamination or Damage—Seller shall maintain a FOD prevention program based on NAS-412 and AS9146. Whenever and/or wherever FOD entrapment or foreign objects can migrate, Supplier shall ensure that applicable FOD requirements are

flowed down to Supplier's sub-tiers. Product must be boxed, banded, or shipped in a manner that will ensure that no FOD and/or damage will occur. External threads and knife edges must have special protection against damage. Supplier shall ensure tooling, jigs, fixtures, and test or handling equipment are maintained in a state of cleanliness and repair sufficient to prevent FOD.

Preservation and Packaging of parts for drop shipment shall comply with MIL-STD-2073-1 (latest revision); any additional flow down requirements by our Customer shall be identified in the NWI Nashville, LLC Purchase Order.

QA-15 Right of Entry – NWI Nashville, LLC, NWI Nashville, LLC Customer, Government and Regulatory Authorities will have the right to survey facilities, inspect and review all processes, subcontractors, contracted parts, procedures, and records and will be provided reasonable facilities.



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QA-16 Suppliers and Subcontracting—Suppliers shall contact NWI Nashville, LLC Purchasing Representative for agreement when subcontracting to Sub-tiers all or substantially all of the order. Subcontracting without written approval from NWI Nashville, LLC is prohibited.

Suppliers shall ensure that all applicable requirements including drawings, specifications, qualifications, key characteristics, etc. are flowed down to all Sub-tiers performing work on NWI Nashville, LLC items.

Suppliers and Sub-tier Suppliers performing special processes shall have obtained the required end Customer approvals including NADCAP where applicable prior to processing items. (e.g. Gulfstream, Cessna, Airbus etc.)

Processes requiring NADCAP approval can be found at www.pri-network.org/

Raw Material and hardware Suppliers and Sub-tier Suppliers and distributors shall be verified against end Customer approved source lists. Only approved sources of those materials shall be used when such a list exists.

- QA-17 Delegated Source Program If Supplier has been selected to perform delegated source inspection for NWI Nashville, LLC Quality Assurance. The Supplier must meet all the requirements agreed upon between the Supplier and NWI Nashville, LLC. No deviation is allowed from these requirements unless written permission from NWI Nashville, LLC Purchasing Representative.
- QA-18 NWI Nashville, LLC Supplied Drawings / PCMs There shall be no deviation from drawings, data, specifications or requirements without written change authority from NWI Nashville, LLC Purchasing Representative. Changes or substitutions are not authorized without prior written approval from NWI Nashville, LLC. All Engineering drawings / PCMs provided by NWI Nashville, LLC are NWI Nashville, LLC property and if stated on the Purchase Order must be returned with the order.
  - Suppliers shall notify NWI Nashville, LLC when technical data in the Supplier's possession does not agree with the revision data specified in a Purchase Order and/ or if additional data is required.
- QA-19 Non-Conforming Items Suppliers shall identify all non-conforming items related to the product including root cause of the non-conformance and corrective action planned and taken.
  - In the event a SCAR is issued by NWI Nashville, LLC for non-conformance we require your immediate attention in completing the Corrective/Preventative Action by the due date stated and returned to sender on the format as received.
- QA-20 Disclosure In the event non-conforming material has been delivered unknowingly to NWI the Supplier shall notify NWI within 48 hours, conduct a complete investigation, and issue a complete description of the non-conformance, part numbers affected, quantities, date shipped and any other information that would aide in the traceability of the item.
- QA-21 Quality Records Supplier quality records shall be verifiable and lot traceable evidencing conformance of all items and the outcome recorded as well as disposition of all non-conforming items. Supplier is required to maintain a traceability listing of all Serial Numbers. Records shall be complete and available to NWI Nashville, LLC, NWI Nashville, LLC Customer, Government and Regulatory Authorities. Suppliers shall maintain quality records, including traceability throughout all stages of manufacturing. The retention period of these records shall be for calendar year plus 10 years from date of shipment under each applicable Order for all Products/part numbers unless otherwise specified on the Order. Supplier shall maintain all records related to the current first article inspection ("FAI") for calendar year plus 10 years past final delivery of the last Product covered by the FAI. No quality records shall be destroyed without the written consent of Buyer or its designee.
- QA-22 Revision Control All manufacturing / processing shall be performed in accordance with the documents and revisions listed. For documents with no revisions specified, the latest shall be used. All listed documents are available upon request from your NWI Nashville, LLC Purchasing Representative.
- QA-23 DPD Requirement Suppliers shall employ a Digital Data Control system, (DPD, MBD, etc.) so electronic data is controlled at a level to assure that integrity of the item and/or tooling Engineering and configuration and manufacturing data is maintained throughout the Suppliers Digital Data Control system from receipt of electronic data through creation of derivatives, to item acceptance and process improvement. Suppliers utilizing NWI Nashville, LLC supplied Digital Product Definition shall be approved by NWI Nashville, LLC and NWI Nashville, LLC end Customer and all their requirements shall be met. (Ref: Customer documents Gulfstream, Cessna, Airbus).
- Tooling Suppliers shall include in its documented quality system written procedures for the control, maintenance, and calibration of special tooling, jigs, inspection and test equipment, and other devices used as inspection authority in manufacturing processes (i.e. Holding fixtures would not be considered for calibration unless controlled tooling points are a factor). Supplier shall maintain a formal internal tool control system that allows for the proper segregation, care, upkeep and maintenance of NWI and NWI Customer owned tooling. Supplier is responsible to ensure all equipment used to test and inspect supplied parts is traceable to NIST requirements. Prior written approval from NWI is required before modification or disposal of NWI or NWI Customer owned tooling.



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- QA-25 ITAR Requirement IMPORTANT/CONFIDENTIAL: Verification of Export Compliance required. This PO (and any drawings and/or attachments accompanying it) may contain confidential information, including information protected by United States Government. The information is intended only for the use of the intended recipient(s). Delivery of this PO to anyone other than the intended recipient(s) is not intended to waive any privilege or otherwise detract from the confidentiality of the PO. If you are not the intended recipient, or if this PO has been addressed to you in error, do not read, disclose, reproduce, distribute, disseminate or otherwise use this information, rather, please promptly notify the sender by phone or e-mail, and then destroy all copies of the PO and its attachments, if any.
- QA-26 DPAS Requirements If so identified, this purchase order contains *Rated Order* quantities certified for national defense use, and the SELLER is required to follow all the provisions of the Defense Priorities and Allocations System (DPAS) regulation (15 CFR Part 700). Under DPAS regulations, as this Contract supports the U.S. Government, is DX or DO Rated, the SELLER must acknowledge the acceptance of this order and comply with the DPAS regulations. Commencement of performance of the Work called for by this Contract in the absence of SELLER's written acknowledgement thereof shall be deemed acceptance of this Contract as written. All Purchase Orders in support of an authorized program; which are assigned a rating will have that rating flowed down to the lowest tier. Please contact your buyer for further clarification.

#### Reference:

#### DoC DPAS Regulation - 15 CFR 700,

#### https://www.dcma.mil/Portals/31/Documents/DPAS/DPAS Contractors REV7.pdf

- QA-27 Counterfeit Parts The Supplier has the requirement to detect, mitigate, disposition and avoid the use or purchase of counterfeit parts, and notify NWI Nashville, LLC buyer if counterfeit parts have been shipped. The Supplier should utilize and reference AS5553/AS6174 for guidance. Upon request, supplier shall provide Counterfeit Parts/Risk Mitigation plan in accordance. with
- AS5553/AS6174.

  Supplier shall acknowledge a Code of Basic Working Conditions and Human Rights and further commits that any material violation of law by Seller relating to basic working conditions and human rights, including laws regarding slavery and human trafficking, applicable to Seller's performance under this Contract/ Agreement may be considered a material breach of this Contract/Agreement for which NWI Nashville, LLC may elect to cancel any open Orders between NWI Nashville, LLC and the Seller, for cause, in accordance with the provisions of this Contract/Agreement, or exercise any other right of NWI Nashville, LLC for an Event of Default under this Contract/Agreement. Seller shall include the substance of this clause, including this flow down requirement, in all subcontracts awarded by Seller for work under this Contract/Agreement.
- QA-29 AS9100D, Section 8.4.3 Information for External Providers External providers for NWI Nashville, LLC shall ensure their workforce is aware of their contribution to product and service conformity, their contribution to product safety, and the importance of ethical behavior.
- QA-30 REACH-Registration, Evaluation and Authorization of Chemicals (REACH) compliance: If raw materials, parts or assemblies contain substances of very high concern (SVHCs) as prescribed by EU directive EC No. 1907/2006, Registration, Evaluation and Authorization of Chemicals, identification shall be included with the shipment. This identification should list the SVHC-designated chemicals present in the purchased article and the conditions under which handling precautions should be taken. Note: Please contact NWI Quality Assurance for further guidance as required.



# **Quality Clauses**

Date	Description of Change Document Revision History	Revision
10-14-2021	Edit and revise Quality Clause to reflect NWI Supplier Quality requirements.	Α
02-04-2022	QA-7 - Revised with recommendation that NWI suppliers use net-inspect for FAI submittals	В
03-03-2022	QA-2 - Item 8 re-worded entire paragraph for increased clarification for special processes information required on Certificate of Conformity	С