

Standard Quality Requirements (Quality Codes) for Purchased Items

Introduction

These quality codes (QCs) serve as the basic quality requirements for Quantic Wenzel, designated as the Company in this document, to assure the achievement of applicable flow down requirements and customer satisfaction. Unless otherwise indicated on the PO, only those requirements whose quality codes are listed on the applicable PO apply to the purchase.

Definitions

In this document, the term "**purchase order**," often abbreviated "PO" (without periods) is the Company's procurement action document. References to "PO" in this procedure shall apply to any alternative procurement action document such as an electronic request.

QC1 - General Requirements

- a. Unless otherwise specified, the information on purchase orders supersedes conflicting information on other purchase documentation. The hierarchy follows:
 - (1) Purchase Order (procurement action document)
 - (2) Codes listed on the PO
 - (3) Quality requirements in design documentation

Additional quality codes and clauses may be made a part of procurement actions (subcontracts, purchase orders, etc.), either directly or by reference. Quality codes describe quality requirements which may be imposed regarding procurement actions. These requirements generally will not be described in any other document and are exclusive to the Company only. Suppliers are to comply with the requirements of all quality codes as noted on the Company PO. Quality codes listed on the Company PO do not apply to other companies associated with Quantic Wenzel.

- b. Quality requirements, codes and clauses are intended to be in addition to, not in derogation of, procurement action requirements.
- c. Quality codes 2 and higher are related to specific activities or actions to be accomplished by the Supplier which may be derived from the Company contractual obligations, industry specifications and/or standards associated with the products and/or services being procured.
- d. A quality clause (statement of requirement) may be noted on the procurement action when a specific quality code does not address a specific requirement.
- e. If a Supplier cannot comply with any applicable quality requirement listed within a quality code or quality clause on a procurement action, then resolution and/or changes to the requirements must be obtained prior to acceptance of the Company procurement action. The primary point-of-contact for Suppliers is the Company's Purchasing Manager.

- f. As the direct Supplier to the Company and the representative of the Manufacturer, Distributors are responsible for compliance with all procurement action requirements. The applicable requirements of all quality codes, quality clauses, and any technical requirements listed on the PO will apply to both the Distributor and the Manufacturer of the product.
- g. Supplier shall be rated by the Company according to the following criteria:
- The supplier has obtained an industry recognized quality system certification such as ISO 9001, AS9100, ISO9001, MIL-Q-9858, ISO10012-1, ANSI-Z-540, FAA Part 145, etc., and has provided appropriate evidentiary documentation to the Company, or the Company has conducted a successful on-site audit of the supplier's facility and processes sufficient to demonstrate conformance with such a standard.
 - The supplier has not necessarily obtained an industry recognized quality system certification but has demonstrated consistent and repeated competence in supplying defect free product on time and over time.
 - The new supplier has been nominated by a Subject Matter Expert within the Company without passing the above two criteria.
- In all cases, the supplier undergoes the supplier onboarding process prior being an approved supplier and being added to the Company's database.
- h. All data, documents, and any certificates of conformance from the Supplier and sub-tiers shall be in English or contain an English translation.
- i. Supplier will maintain quality records for products, equipment or services provided to the Company for a minimum of 7 years after the requirements of the procurement action have been fulfilled.
- j. When required, first piece/article inspection (FPI/FAI) reports are to be maintained for an indefinite period of time.
- k. Suppliers will notify the Company when changes occur that will affect their management system (address/location, quality system approval level/type). To maintain an accurate Approved Manufacturer's List, the Company may conduct periodic reviews (e.g., surveys, questionnaires, on-site visit) to ensure a Supplier's information is correct and current.
- l. Direct Suppliers to the Company will flow down applicable quality and procurement action requirements to their sub-tier Suppliers to ensure the integrity of the specified requirements are maintained throughout the supply chain (e.g., first piece/article inspection, customer approved special processes, key characteristics, record retention.). Ref: AS9100D Section 8.4.1
- m. Supplier will notify the Company, or issue a recall notice, when discrepancies in the Supplier's process or product are discovered or suspected which may affect the form, fit, or function of product Supplier has delivered or will deliver to the Company.

- n. Supplier is to provide root cause analysis and corrective action when a Supplier Corrective Action Request (SCAR) is issued because of non-conforming products, services, on-site survey/evaluation, or documentation and delivery problems.
- o. Supplier is **NOT** granted Material Review Board (MRB) authority for any product that is manufactured to a Company drawing/specification or the Company's Customer's drawing/specification. Any deviations to engineering drawings/specifications must have the Company and/or the Company's Customer approval prior to shipment of product. MRB disposition received from the Company or the Company's Customer is a conditional acceptance of the item(s) and does not relieve the Supplier of any contractual responsibilities if the Company or the Company's Customer is dissatisfied with the product.
- p. Shelf-life information (i.e., expiration date, cure date) of product/materials subject to degradation with age or varying temperatures must be clearly stated on the certificate of conformance/packing slip or product/packaging. Product/materials shall have a minimum of 75% shelf life remaining at time of receipt by the Company. If the Supplier desires to provide product with less than 75% shelf life, Supplier is required to obtain approval from the Company Purchasing Manager prior to shipment.
- q. Products/materials which are volatile or toxic in nature shall be properly packaged in accordance with the applicable Code of Federal Regulations. Containers will be plainly marked as to the contents with appropriate warnings, precautions, instructions, and storage conditions. Appropriate documentation (MSDS, handling, etc.) will accompany each shipment.
- r. Product/material categorized as Electrostatic Sensitive Devices (ESD) shall be packaged and labeled in accordance with the appropriate specification/drawing requirements (i.e., MIL-STD-1686; MIL-STD-129; ANSI/ESD S20.20) for the product/material being provided to the Company.
- s. Product/material categorized as Moisture Sensitive shall be packaged in a Moisture Barrier Bag (MBB) that provides moisture and ESD protection and is heat sealable. (MIL-PRF-81705 Type 1, IPC/JEDEC J-STD-033 or equivalent)
- t. If Supplier has received product from the Company (customer furnished material) as related to an issued procurement action, Supplier is required to maintain traceability (i.e., lot/batch identification, part marking) of the product through the processes when possible. Product life cycle is inclusive of special processes (electroplating, chemical film, paint/primer, welding, cutting, bending, etc.) testing and assembly.
- u. Suppliers will ensure that persons fulfilling this purchase order are aware of: Their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.

QC2 – Certification of Conformance

Dependent upon the type of product procured by the Company, the Supplier is required to provide with each shipment of product a Certificate of Conformance or equivalent that contains the following:

- 1) The Company purchase order number
- 2) Part number and description of the ordered item
- 3) Revision number/letter of the item being provided, when applicable
- 4) Signature and/or stamp of the Supplier's representative.

NOTE: A Certificate of Conformance document that includes the company letterhead and a Certificate of Conformance statement may be deemed acceptable, at the Company's discretion, in lieu of providing a Supplier representative's signature and/or stamp.

Distributors – A Manufacturer Certificate of Conformance is the preferred document for the ordered item. If a Manufacturer Certificate of Conformance is not provided with the shipment of product, the Company reserves the right to receive from the Distributor, at the time of or after receipt of product, a Manufacturer's Certificate of Conformance.

QC3 – Site Visit

The Company, our Customers and Government regulatory agencies may visit the Supplier's facility and/or their sub-tier Suppliers for the purpose of verifying contract compliance and product conformity (e.g., source inspection, witness testing, product audit, quality system audit). Supplier will provide the necessary support to the visiting personnel. Arrangements for such visits will be coordinated through the Company Purchasing Manager.

QC4 – First Article Inspection (FAI)

The processes and requirements of AS9102 apply to this First Article Activity and the report shall be the released revision at the time of purchase order acceptance. All data and documentation required for the acceptance of the First Article shall be provided with the FAI

An FAI is required if:

- a) New part number for the seller
- b) An FAI has never been submitted/approved before for the part
- c) After a 2-year break in production
- d) After a manufacturing site change (including subcontract location)
- e) After part number, material, hardware, process, design media revision(s)-these items may require partial FAI's

f) Otherwise as specified by the Company.

Balloon Call Outs – The FAI report package shall include a ballooned drawing, traceable to Form 3 characteristic listing, to facilitate review and approval. “Ballooning” is a common technique used to:

- a) Identify each characteristic on the drawing, DPD and
- b) Establish an organized method of capturing objective evidence that each drawing requirement is met.

If the quantity of the ordered item consists of more than one piece, the item from which the First Piece/Article Inspection report was generated shall be identified (e.g., tagged, bagged, labeled). First article inspection does not relieve seller of responsibility for nonconforming hardware found at buyer’s facility. Final acceptance of product delivered under this subcontract occurs at buyer’s facility.

QC5 – Demonstrated Compliance

Supplier is to provide a copy of the raw material test data (e.g., chemical, physical, heat treatment) for the ordered product that demonstrates compliance with applicable specifications (QQ-N-; AMS-; SAE-; etc.) and/or drawing requirements. If the Company procurement action and/or provided drawing do not call out any material specification for the material type being ordered, then the Supplier may provide material to a specification of their choice.

QC6 – Source Inspection

Source Inspection by the Company and/or the Company Customer is required prior to shipment of product. Supplier is to contact the Company Procurement representative in advance of product shipment to plan for source inspection activity.

QC7 – Acceptance Testing at Supplier’s Facility

The Company and/or the Company Customer are to witness acceptance testing at Supplier facility. Supplier is to contact the Company Procurement representative in advance of acceptance testing activities to plan for witnessing of testing.

QC8 – C of Cs and Proof of Qualifications for Special Processes

Supplier is to furnish certificates of conformance for special processes or testing (e.g., NDT, spectral scans, coatings such as electroplating, chemical film, paint) that includes the specification(s) associated with the performed process(es).

The Company reserves the right to request/receive documented evidence of compliance to specification requirements (e.g., training, qualifications) for any employee or subcontractor that performed a special process associated with an ordered item.

- a) General - Supplier and any sub-tier supplier shall provide proof of conformance to industry standards for performing special processes (examples include heat treating, welding, coating, plating, non-destructive testing, etc.) called out by the provided controlling documentation. The Certificate of

Conformance shall list the relevant industry processing standard being performed by the Supplier, the type of special process, class, etc. Suppliers must have controls in place and documented for approving Sub-Tier suppliers, as applicable, to ensure they are meeting the industry processing standards to perform the relevant Special Process.

- b) NADCAP - Supplier and any sub-tier supplier performing special processes (examples include heat treating, welding, coating, plating, non-destructive testing, etc.) shall be NADCAP accredited for the process called out by the provided controlling documentation. Supplier shall maintain records verifying accreditation of special processes and personnel. Evidence of accreditation shall be provided with the shipment. The Certificate of Conformance shall list the industry processing standard, type, class, etc. for each NADCAP Certified process being performed.
- c) Customer Approved - Supplier and any sub-tier supplier performing special processes (examples include heat treating, welding, coating, plating, non-destructive testing, etc.) shall be customer approved for the process called out by the provided controlling documentation. Supplier shall maintain records verifying accreditation of special processes and personnel. Evidence of accreditation shall be provided with the shipment. The Certificate of Conformance shall list the industry processing standard, type, class, etc. for each NADCAP Certified process being performed. A list of current customer approved suppliers to be provided by the Company. The list provided applies to current order only.

QC9 – Selective Evaluation

The Government imposes Selective Evaluation on this order. During performance of this order, supplier quality control or inspection system and manufacturing processes are subject to review, verification, and analysis by authorized Government representatives.

QC10 – Raw Material Certification

Supplier is required to provide an independent lab/test report that validates the raw material being provided conforms to the mil certification/test report and applicable specifications.

QC11 – Proof of Calibration

For each item or service, a Supplier provides that is used to monitor conditions or validate dimensions, the Supplier is required to provide a certificate of calibration that meets the requirements of ANSI-Z-540 or ISO 10012-1. Equipment or calibration standards are to be traceable to the National Institute of Standards and Technology (NIST). Certificates of calibration will include a due date of the last day of the month for which the calibration was performed (e.g., calibration performed on June 12. Due date = June 30).

QC12 – Rework or Repair Approval and Documentation

Supplier is to request approval from QW prior to commencing and to provide copies of applicable documents (teardown reports, analysis, work orders, repair reports, etc.) as related to the analysis, testing rework, or repair of product on this purchase order.

QC13 – Environmental, Health & Safety Terms and Conditions

The Company's Environmental Health and Safety Terms and Conditions apply to the services/work to be performed under this Purchase Order.

QC14 – Manufacturer's C of C Required

Supplier is to provide the Manufacturer's Certificate of Conformance for ordered item. The certificate of conformance should, at a minimum, contain:

- 1) Part number and description of the ordered item,
- 2) Revision number/letter, date code, batch number, date of manufacture, expiration date, etc., of the item being provided, when applicable,
- 3) Signature and/or stamp of the Manufacturer's representative.

QC15 – Logbook Record for Maintenance Work

Supplier is to provide a maintenance record entry (e.g. – logbook entry) for the service/work that will be performed.

QC16 – Certificate of Calibration for Item

A certificate of calibration that meets the requirements of ANSI-Z-540, ISO 10012-1 or other applicable standard is required to be provided for this item. Equipment or calibration standards are to be traceable to the NIST.

QC17 – Single Lot

Line items to be delivered must be from the same manufacturing lot and contain a single lot code.

QC18 – Test Report

Test Report(s) for Line items must accompany the delivery. If possible, test data will be traceable to individual components.

QC19 – Serialization

Items delivered must be individually serialized preferably with the marking on the item, or on individual packaging if product marking is not possible.

QC20 – Potentially Suspect/Counterfeit Material

The Company has identified the ordered item to be electronic in nature which is now classified by the U.S. DOD (Department of Defense) as a potential high risk for being suspect/counterfeit material. Procurement of this product type may now only be obtained via the Manufacturer direct or their authorized distributor.

The supplier is to provide a Certificate of Conformance based on their type of organization:

- A. If an OEM / OCM - Provide an OEM / OCM Certificate of Conformance
- B. If an Authorized Franchised Distributor – Provide an Authorized Franchise Distributor Certificate of Conformance

The Certificate of Conformance should, at a minimum, contain the following information:

- 1) The Company procurement action number,
- 2) Part number and/or description of the ordered item,
- 3) Revision number/letter of the item being provided, when applicable,
- 4) Signature and/or stamp of the Supplier's representative.

NOTE: A Certificate of Conformance document that includes the company letterhead and a Certificate of Conformance statement may be deemed acceptable, at the Company's discretion, in lieu of providing a Supplier representative's signature and/or stamp.

Distributors – A Manufacturer Certificate of Conformance is the preferred document to be provided for the ordered item. If a Manufacturer Certificate of Conformance is not provided with the shipment of product, the Company reserves the right to receive from the Distributor, at the time of or after receipt of product, a Manufacturer's Certificate of Conformance.

QC21 – Qualified Products List Item

The Company has identified the ordered item is subject to meeting the requirements of a QPL (Qualified Products List). As such, the ordered item may only be provided via the Manufacturer direct, or their authorized distributor as posted/published in the applicable QPL.

Supplier is to provide a Certificate of Conformance that, at a minimum, contains the following information:

- 1) The Company PO number,
- 2) Part number and/or description of the ordered item,
- 3) Revision number/letter and/or Date/lot code of the item being provided, when applicable,
- 4) Signature and/or stamp of the Supplier's representative.

Distributors – A Manufacturer Certificate of Conformance is the preferred document to be provided for the ordered item. If a Manufacturer Certificate of Conformance is not provided with the shipment of product, the Company reserves the right to receive from the Distributor, at the time of or after receipt of product, a Manufacturer's Certificate of Conformance.

QC22 – Requirement for Test Specimen

A fully functional unit or units of the subject product shall be provided to the Company as test specimens using the same production methods and machines that are designated for the production run. Such test specimen(s) may be used for destructive tests or for design approval, inspection/verification, investigating or auditing. When required, the Supplier shall provide information to the Company regarding storage conditions of any such test specimen.

QC23 – Specialty Metals DFARS 225.70003-3

This Clause prohibits Seller and all Seller's sub-suppliers from incorporating into military parts, components, systems, subsystems, and/or end item deliverables "specialty metals" (identified in the clause, including titanium and stainless steel) which have been melted outside the United States, its possessions, or Puerto Rico, unless certain limited exceptions set forth in the clause or DFARS 225.7003-3 apply. One such exception is for specialty metals melted in a qualifying country or incorporated into an article manufactured in a qualifying country. Those countries are listed at DFARS 225.872-1(a) or (b). If a qualifying country exception applies, the source for specialty metals melted outside the United States must be listed in an applicable Qualified Products List (QPL).

QC24 – IPC-A-610 Material

Workmanship **shall** be in accordance with IPC-A-610 "Acceptability of Electronics Assemblies" Class 3.

QC25 – IPC/WHMA-A-620 Material

Workmanship **shall** be in accordance with IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies" Class 3.

QC26 – J-STD-001

Workmanship **shall** be in accordance with J-STD-001 "Requirements for Soldered Electrical and Electronic Assemblies" Class 3.

QC27 – RoHS

The Supplier **shall** comply with The Restriction of Hazardous Substances Directive 2002/95/EC (RoHS 1), which is the Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment, was adopted in February 2003 by the European Union.

QC28 – REACH

The supplier **shall** comply with the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), which is the European Union regulation addressing the production and use of chemical substances, and their potential impacts on both human health and the environment.

QC29 – Special Assembly (i.e., Oven Plate)

The supplier shall follow specific detail work instructions provided by the Company regarding special assembly.

QC30 – Engineering Changes Class-I (Major) and Class-II (Minor)

The supplier **shall** notify the Company of Major (Class I), or Minor (Class II) engineering changes as classified by the Configuration Management standard, EIA-649, table-4.

QC31 – Finishes

BLACK ELECTROLESS NICKEL:

VENDORS IN ORDER OF PREFERENCE (TOP DOWN) WITH FINISH CALL OUT:

1. SHEFFIELD PLATERS INCORPERATED (CAGE 048L4)
POC: info@sheffieldplaters.com

FINISH CALL OUT:

- a) Process – Black Electroless Nickel Plate per SPI Connector Black QP4.9 B-EN, 400-800 Microinches (.0004”-.0008”) Thick Total Per Surface
- b) Plating Layers – High Phosphorous Electroless Nickel 200-300 Microinches (.0002”-.0003”) + Low Phosphorous Electroless Nickel 350-450 Microinches (.00035”-.00045”)
- c) Masking/Plugging - None
- d) Post Plate Operations – Blackening, Electrotarnil, Bake 250°F for 1 hour

2. ANOPLATE CORPORATION (CAGE 4N292)

FINISH CALL OUT:

- a) ANOBLACK NITE ELECTROLESS NICKEL PER SAE-AMS-2404 CLASS 1 (0.0004” TO 0.0008” THK)

REVISION HISTORY

Revision	Date	Nature of Changes	Approved By
A	04/08/2025	Original released	JDW