



PCA PURCHASE ORDER CLAUSES

"Buyer" = PCA Aerostructures Company

"Seller" = Vendor, Supplier, Subcontractor, and/or Agents/Representatives

Buyer objects in advance to the inclusion of any additional or different terms proposed by *Seller* in acceptance or acknowledgment of purchase order. The inclusion of such terms by the *Seller* will be of no significance. Such terms will not be conditions or additional terms to the purchase order. Unless otherwise stated on the face of the purchase order, the following Quality Text Clauses shall apply. These Quality Text Clauses will vary and will be specifically called out in every purchase order issued to your company. Their specifically assigned QC clause numbers (i.e., QC1, QC2, Q1, Q2) will reflect them.

QC1 PHYSICAL AND CHEMICAL TEST REPORTS

Seller shall supply one copy of physical and/or chemical test reports for each lot, batch or heat, whichever is applicable. *Seller* shall supply original mill certification with shipment of material specified on the purchase order. The report must show that material/parts delivered are acceptable and be shall be identifiable to the product being delivered. The heat number and material manufacturer must appear on the certification. All metal alloys shall require traceability to the original heat number, and shall comply with the current material specification revision in effect when melted. The heat number and material manufacturer must appear on the certification. Material converters are responsible for maintaining heat lot traceability and are prohibited from welding, brazing, or otherwise joining coils.

QC2 MATERIAL SAMPLE REQUIRED

Seller shall furnish PCA Aerostructures Company a material sample cut or molded from the same material as the product supplied. PCA Aerostructures Company or the material specification shall determine the size of the sample. For PCA Aerostructures Company, material samples supplied shall be cut per purchase order instructions. Note: The *Buyer's* Receiving Department will deem for rejection and subject to refusal shipments made by the *Seller* without samples. Similarly, if the sample does not pass its material specification tests, the product supplied shall be considered unacceptable and will be returned to the *Seller*.

QC3 INSPECTION REPORT

A completed copy of the PCA Aerostructures Company Inspection Report (Form F10-03) must accompany each item specified on the purchase order. 100% Inspection is required with actual recorded results, for all characteristics on all parts to ensure conformance to drawing and specification requirements. A copy of this inspection record is required with the shipment of product.

QC4 INSPECTION AND CALIBRATION SYSTEM REQUIREMENTS

Seller shall maintain a documented quality system that complies with the requirements of government and/or industry quality system standards. Specifically, *Seller* shall maintain a documented calibration system in accordance with ISO 10012 and/or ANSI/NCSL Z540-1 and Boeing D1-9000 Section 1.11; and as a minimum, an inspection system compatible with the requirements of ISO 9002. *Seller's* quality system is subject to verification and approval at all times by PCA Aerostructures Company Quality Assurance Department.

QC5 GENERAL ELECTRIC S-1000

Seller agrees to comply with the quality requirements stated under the current revision of General Electric S-1000, Part III.

QC6 CHANGES

Seller must and shall not make any changes to the processes or materials specified under the purchase order. *Seller* shall notify PCA Aerostructures Company in writing prior to any proposed changes to supplier controlled design, parts, materials, fabrication methods or processes, that may affect function, interchangeability or reliability of hardware delivered to PCA Aerostructures Company or of any changes to facility location, ownership or quality management following a quality survey /audit by PCA Aerostructures Company.

QC7 AGGREGATE QUANTITY SHIPMENT VARIANCES

Seller shall supply quantities for the net amount ordered. Any variance reflected on the purchase order must be approved by *Buyer's* appropriate purchasing representative prior to shipment. Unauthorized shipments received will be returned to *Seller* at his expense.

QC8 ACCEPTABLE OVER SHIPMENT ALLOWANCES

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QC9 VARIABILITY REDUCTION PROGRAM

Seller shall implement Statistical Control Procedures when applicable. A detailed Statistical Process Control (SPC) Histogram and/or Control Chart with recorded Cpk must accompany each shipment. The report must include evidence of conformance to all the elements including material and processes. All specified key characteristics must be recorded. The report may be the *Seller's* format, and must list drawing characteristics consistent with customer supplied data. The report must show the part number, revision and PO number, run time and verified dimensional Cpk's. PCA Aerostructures Company reserves the right to witness the actual inspection or to require spot checks to verify the data.

QC10 PCA AEROSTRUCTURES COMPANY SOURCE INSPECTION



PCA Aerostructures Company source inspection is required. Inspection shall be conducted at the *Seller's* facility and shall be requested and accomplished prior to shipment. When the items on the Purchase Order are ready for inspection, notify the *Buyer's* purchasing representative so that coverage can be arranged. Drawings, specifications and/or other pertinent data, as required by Purchase Order, shall be made available to the PCA Aerostructures Company Quality Representative, at the time of material presentation.

QC11 FAA/CUSTOMERS RIGHT OF ENTRY

Seller agrees that its facility, fabrication inspection system, methods and procedures are subject to the Federal Aviation Administration (FAA) or Government Agencies surveillance and investigation. All other PCA Customers reserve the right of entry into the plant to verify the quality of work and materials at any / all production stages, as well as compliance to procedures and specifications.

QC12 FIRST ARTICLE INSPECTION

A detailed first article inspection report is required. The report must be on PCA Aerostructures Company Inspection Report (Form F10-03, or equivalent AS9102 compliant documentation) and must list all drawing characteristics. The report must include evidence of conformance to all elements including material and processes. Each drawing characteristic must be complete with the tolerance in an adjoining column. The measured condition must be recorded. The report must show PCA Aerostructures Company part number, revision and purchase order number. PCA Aerostructures Company must be notified in advance when the first article inspection is scheduled and reserves the right to witness the actual inspection or to require spot checks to verify the data. This first article will consist of one piece. This piece must be identified and packaged separately along with the report when shipped with the production parts.

QC13 GOVERNMENT SOURCE INSPECTION REQUIRED

Government inspection is required prior to shipment of this material from your facility. *Seller* is responsible for providing the Government Inspector with verifiable evidence that supplies meet the requirements of the subcontract or purchase order. Upon receipt of this order, promptly notify the Government Representative who normally services your facility so that appropriate planning for Government Inspection can be accomplished. Provide a copy of this order to the Government Representative who normally services your plant or, if none, to the nearest Army, Navy, Air Force, or Defense Supply Agency inspection office. In the event the representative or office cannot be located, notify our Purchasing Department immediately.

QC14 RELATED REGULATORY REQUIREMENTS

The provisions of executive order 11246, as amended by executive order 11375 (Equal Employment Opportunity), 38 USC 4212 (Vietnam Era Veterans Readjustment Assistance Act), and Section 503 of the Rehabilitation Act of 1973 (Handicapped Regulations), implementing regulations found at 41 CFR 60-1 & 2, 41 CFR 60-250 and 41-CFR 60-741 are hereby incorporated by reference.

QC15 SPECIAL PROCESSES

Each special process, including, but not limited to: soldering, cleaning / etching or passivation, welding, brazing, plating / coating, heat treating, magnaforming / swaging, electro polishing, acid pickling, impregnating, bonding, glass sealing, shot peening, silkscreening, magnetic particle / penetrant or X-Ray or N-Ray inspections, when required by either a Government, ASTM, or other process specifications shall be performed by OEM approved suppliers only. A list of approved special processors will be provided when required and upon request by the *Seller*. Each shipment must include a report or certification of adequate data as to where the processing was accomplished, including name and address of processing source. When required, laboratory testing facilities used to verify compliance to special processing requirements must be duly accredited laboratories in accordance with Public Law 106-34, otherwise known as the Fastener Quality Act (FQA).

QC16 CERTIFICATE OF CONFORMANCE

Seller shall submit with each shipment a Certificate of Conformance stating that the items furnished to PCA Aerostructures Company are in conformance to the Purchase Order/Drawing requirements applicable to the items delivered. Any recognized aerospace, military and/or industry standard, when imposed by the drawing, specification or Purchase Order must be specifically stated and form a part of the certification. *Seller* shall have on file all material, chemical and physical test reports and C of C's for processes performed by sub-tier suppliers and shall make these documentation available for review by PCA Aerostructures Company Representative upon request. As a minimum, each supplier and/or sub-tier certification must contain the following information: (a) Purchase Order Number (b) Lot Number (c) Quantity Shipped (d) Part Number (e) Name and address of the company issuing the certification (f) The date of issue, and (g) Signature and title of the *Seller's* authorized representative.

QC17 SHELF LIFE ITEMS

Materials or articles having characteristics subject to degradation with age shall be marked in a manner to indicate the date of manufacture and expiration date in addition to standard identification requirements. Batch numbers and special storage or handling conditions shall be included when applicable. Material Safety Data Sheets (M.S.D.S.) must also be provided where there is a danger to health from material being purchased and when applicable.

QC18 PACKING/PACKAGING

Seller must ensure that all items shipped under this Purchase Order are adequately packed and/or packaged to prevent damage, contamination and/or deterioration. Unless otherwise specified on the Purchase Order, *Seller* must use best commercial practices in packaging to prevent damage, contamination and/or deterioration to all items during transit.

QC19 MERCURY FREE CERTIFICATION

Each shipment is to be accompanied by one legible and reproducible certification of mercury free material. The report must contain the signature and title of the authorized representative of the certifying facility and must conform to the specification requirements. This certification could be furnished as



part of the Certificate of Conformance specified in clause QC16 herein or in any other form preferable to the supplier.

QC20 NONCONFORMING MATERIAL CONTROL & LATENT DEFECT NOTIFICATION

If nonconformances are detected during manufacturing or inspection, the supplier quality assurance personnel shall disposition the nonconformance in one of the following categories: **(a) Rework or completion of operations:** If the nonconformances are in this category, the articles shall be reworked, resubmitted to normal inspection and/or test operations and must meet all drawing specifications. **(b) Scrap:** If the article is dispositioned in accordance with the supplier procedures for controlling and disposition of scrap material. Replacements, if required, must be accompanied with the required test samples and certifications. Note all scrapped material must be mutilated prior to scrap part / sent to scrap collector. **(c) Submit for PCA Aerostructures Company preliminary review:** Dispositions outside the above will require PCA Aerostructures Company preliminary review action. The supplier shall segregate and control the nonconforming material to assure no further work is accomplished on the discrepant item(s) until PCA Aerostructures Company preliminary review disposition is obtained. The supplier shall request PCA Aerostructures Company preliminary review action. The material must be held at the supplier facility pending direction from PCA Aerostructures Company. When PCA Aerostructures Company preliminary review action is completed, the disposition will be provided to the supplier immediately. **Internal nonconformances in the supplier's daily operations shall be evaluated for their potential to exist in previously produced or delivered hardware. If a potential latent defect is determined, a written notice to PCA is required within 24 hours of discovery.**

QC21 SCREW THREAD GAUGING SYSTEM REQUIREMENTS

Seller, providing thread forming processes or threaded product, shall comply to requirements specified in the applicable specification. Unless otherwise specified, all threads must comply system 22 requirements per ASME B 1.3 and reference Mil-Std-8879, Mil-Std -7742, or FED-STD-H28 guidelines as applicable.

QC22 PREFERENCE FOR DOMESTIC SPECIALTY METALS

This contract requires compliance with DFARs 252.225-7014. These requirements shall apply to Seller and shall be flowed to all Seller's sub-tiers who provide specialty metals pursuant to this contract.

"As prescribed in 225.7002-3(b)(1), use the following clause: PREFERENCE FOR DOMESTIC SPECIALTY METALS (JUN 2005)

(a) *Definitions.* As used in this clause—

(1) "Qualifying country" means any country listed in subsection 225.872-1 of the Defense Federal Acquisition Regulation Supplement.

(2) "Specialty metals" means—

(i) Steel—

(A) With a maximum alloy content exceeding one or more of the following limits: manganese, 1.65 percent; silicon, 0.60 percent; or copper, 0.60 percent; or

(B) Containing more than 0.25 percent of any of the following elements: aluminum, chromium, cobalt, columbium, molybdenum, nickel, titanium, tungsten, or vanadium;

(ii) Metal alloys consisting of nickel, iron-nickel, and cobalt base alloys containing a total of other alloying metals (except iron) in excess of 10 percent;

(iii) Titanium and titanium alloys; or

(iv) Zirconium and zirconium base alloys.

(b) Any specialty metals incorporated in articles delivered under this contract shall be melted in the United States or its outlying areas.

(c) This clause does not apply to specialty metals—

(1) Melted in a qualifying country or incorporated in an article

manufactured in a qualifying country; or

(2) Purchased by a subcontractor at any tier.

ALTERNATE I (APR 2003)

As prescribed in 225.7002-3(b)(2), substitute the following paragraph (c) for paragraph (c) of the basic clause, and add the following paragraph (d) to the basic clause:

(c) This clause does not apply to specialty metals melted in a qualifying country or incorporated in an article manufactured in a qualifying country.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts for items containing specialty metals."

PCA AEROSTRUCTURES COMPANY ADDITIONAL PURCHASE ORDER QUALITY CLAUSES

- Q1** PCA SOURCE INSPECTION: PCA Aerostructures Company source inspection is required. Inspection shall be conducted at the *Seller's* facility and shall be requested and accomplished prior to shipment. When the items on the Purchase Order are ready for inspection, notify the *Buyer's* purchasing representative so that coverage can be arranged. Drawings, specifications and/or other pertinent data, as required by Purchase Order, shall be made available to the PCA Aerostructures Company Quality Representative, at the time of material presentation.
- Q2** 100% INSPECTION: See QC3
- Q3** INSPECTION REPORT REQUIRED: See QC3
- Q4** CONTRACT/DRAWING DIRECTED SOURCE/QUALIFIED PRODUCTS LIST: This item/service is to be procured from a listed source.
- Q5** ROCKWELL HARDNESS/ELECTRICAL CONDUCTIVITY TEST: Verification is required. Certifications must show actual readings as well as specification requirements (High and Low).
- Q6** SERIALIZATION: Requirement that all parts have unique serial numbers maintained and/or assigned. Maintain S/N traceability at all stages of manufacturing or processing. Indicate S/N's on all certification, shipping reports and/or other documentation as applicable.
- Q7** PCA FURNISHED DOCUMENTS: All drawings, specifications, mylars, or related data are to be returned upon completion of the PO or Contract.
- Q8** TECHNICAL OR PROPRIETARY DATA: All data provided to support manufacturing or process of this order is proprietary and shall not be reproduced in whole or part, and shall be returned upon completion of the PO or contract.
- Q09** CUSTOMER-FURNISHED PROPERTY: All tooling utilized in this order is Customer-Furnished and shall be returned with final shipment of parts or product.
- Q10** SUBCONTRACTING: Subcontracting all or part of the work procured on this PO without written approval of PCA is prohibited. All approved subcontracted operations must meet all provisions of the PO and be certified by the subcontractor.
- Q11** FLOWDOWN: Boeing's D1-9000A. Quality System Requirements are hereby imposed.
- Q12** FLOWDOWN: Northrop's (SQR) Quality System Requirements are hereby imposed.
- Q13** FLOWDOWN: Lockheed's Attachment "Y" Quality System Requirements are hereby imposed.
- Q14** WRITE-IN REQUIREMENTS: Any requirements not specified above shall be explained in detail here or in an accompanying document.
- Q15** FLOWDOWN: Lockheed's Appendix QR "Quality Requirements Seller Quality Requirements"
For PCA Purchase Orders (PCA Vendor codes 008448 and 681627)

"Processing to be accomplished in performance of this purchase order is directly related to a Lockheed Martin Aeronautics Company purchase order and must be accomplished in accordance with process specification(s) on this purchase order and the revision in effect as of the date of this PO of Lockheed Martin Aeronautics Company Appendix QJ. All requirements of such Appendix QJ paragraph 12.a.-f. shall be accomplished. Appendix QJ is located at www.lmaeronautics.com/material-management/."

Requirements for the supplier to flow down to sub-tier suppliers to applicable requirements in the purchasing documents, including key characteristics where required.

- Q16** CAUSE AND CORRECTIVE ACTION: When requested in writing by PCA Aerostructures supplier shall provide proof of corrective action, root cause and root cause corrective action for any deficiencies deemed supplier responsibility on Corrective Action Request, Forms F13-01 or F14-01. Failure to respond in a timely and/or effective manner may result in future on-site review, source inspection at supplier's facility, being placed on purchase order hold status and/or removal from the PCA Approved Supplier List (ASL).
- Q17** LATEST SPECIFICATION REVISIONS: The supplier shall use the latest specification revision as published in the PCA Aerostructures Company's "Process Specification Revision Levels - Form F06-03" as supplied to your company. A cur-

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ADDITIONAL PURCHASE ORDER QUALITY CLAUSES

rent copy of Form F06-03 is available on-line at the PCA website www.pcaaerospace.com, or can be supplied by fax/e-mail through your PCA Buyer.

- Q18** **Foreign Object Debris/Damage Prevention:** Seller shall maintain a FOD prevention program. Seller's 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. Seller shall ensure work is accomplished in a manner preventing foreign objects or material in deliverable items. Seller shall maintain work areas and control tools, parts and materials in a manner sufficient to preclude the risk of FOD incidents. Seller shall document and investigate each FOD incident and ensure elimination of the root cause of each incident.
- Q19** **Lockheed Q4R FOD Prevention Clause:** Seller shall maintain a FOD prevention program in accordance with the requirements of Lockheed Quality Clause Q4R and assure same requirements are flowed down to Seller's subcontractors at every tier. The complete text of Clause Q4R can be found at the following web address: <http://www.lmaeronautics.com/material-management/> under Quality Appendices.
- Q20** **Preference for Domestic Specialty Metals:** This contract requires compliance with DFARs 252.225-7014. These requirements shall apply to Seller and shall be flowed to all Seller's sub-tiers who provide specialty metals pursuant to this contract.

"As prescribed in 225.7002-3(b)(1), use the following clause:

PREFERENCE FOR DOMESTIC SPECIALTY METALS (JUN 2005)

(a) *Definitions.* As used in this clause—

(1) "Qualifying country" means any country listed in subsection 225.872-1 of the Defense Federal Acquisition Regulation Supplement.

(2) "Specialty metals" means—

(i) Steel—

(A) With a maximum alloy content exceeding one or more of the following limits: manganese, 1.65 percent; silicon, 0.60 percent; or copper, 0.60 percent; or

(B) Containing more than 0.25 percent of any of the following elements: aluminum, chromium, cobalt, columbium, molybdenum, nickel, titanium, tungsten, or vanadium;

(ii) Metal alloys consisting of nickel, iron-nickel, and cobalt base alloys containing a total of other alloying metals (except iron) in excess of 10 percent;

(iii) Titanium and titanium alloys; or

(iv) Zirconium and zirconium base alloys.

(b) Any specialty metals incorporated in articles delivered under this contract shall be melted in the United States or its outlying areas.

(c) This clause does not apply to specialty metals—

(1) Melted in a qualifying country or incorporated in an article manufactured in a qualifying country; or

(2) Purchased by a subcontractor at any tier.

ALTERNATE I (APR 2003)

As prescribed in 225.7002-3(b)(2), substitute the following paragraph (c) for paragraph (c) of the basic clause, and add the following paragraph (d) to the basic clause:

(c) This clause does not apply to specialty metals melted in a qualifying country or incorporated in an article manufactured in a qualifying country.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts for items containing specialty metals."

- Q21** **Right Of Entry:** Seller agrees that its facility, fabrication inspection system, methods and procedures applicable to this purchase order are subject to surveillance by the Buyer, Buyer's Customer, and Government agencies with direct contract or certification responsibilities to verify the quality of work and to obtain information relative to production status of the job.

PCA AEROSTRUCTURES COMPANY

ADDITIONAL PURCHASE ORDER QUALITY CLAUSES

Q22 **PCA Supplier DPD / MBD:** *Seller's Compliance to Boeing DPD/MBD Requirements D6-51991:* The engineering contained within this purchase order is digitally controlled per PCA Procedure AWI-42-24: Outside sources are required to be DPD/MBD approved by PCA unless the following "alternate" dataset control procedure is used. Seller will not outsource any DPD/MBD work pursuant to this purchase order without written authorization.

1.0 Alternate Control Procedure:

- 1.1 Outside fabrication suppliers using translations of PCA approved datasets for use in fabrication and inspection operations must have their IGES translations created in the supplier's CAD/CAM system verified by PCA.
- 1.2 Suppliers are required to control PCA approved dataset translations in such a manner as to preclude the use of unapproved translations.
 - 1.2.1 This control must be evidenced on the supplier's manufacturing paperwork indicating the file used in fabrication operations.
- 1.3 Translation Approval:
 - 1.3.1 PCA approved datasets will be provided to the supplier on the supplier's PCA website portal located at www.pcaaerospace.com.
 - 1.3.2 The supplier will download the dataset into the supplier's CAD/CAM system and generate the translation they will use.
 - 1.3.3 The supplier will then upload their translation back into the PCA supplier portal for approval.
 - 1.3.4 PCA will provide notification to the supplier of the check results in the supplier's PCA website portal.
 - 1.3.5 Unapproved translations must be corrected and resubmitted for approval.