

HUGHES BROS. AIRCRAFTERS

I N C O R P O R A T E D

ATTACHMENT “Q” PURCHASE ORDER QUALITY CLAUSES

- 1.0 PURPOSE:** This document establishes the procurement “Q” clause requirements applicable to materials, products or services ordered under the purchase order of which this attachment is a part of. These requirements are those necessary to ensure that all items delivered to Hughes Bros. Aircrafters Inc. are in conformance with the requirements imposed on the purchase order and meet the requirements flow down by the prime customer.
- 2.0 RESPONSIBILITY:** Hughes Bros. Aircrafters Inc. is responsible of ensuring the quality of all products supplied to its customers. Therefore, it is critical that suppliers contracted under this purchase order are to deliver products or services that meet the clauses identified. Hughes Bros. Aircrafters is determined to utilize suppliers that will assist in meeting our performance goals. The Supplier has the primary responsibility to maintain a quality system and customer service that will meet or exceed our requirements. The supplier is responsible for all inspections and tests required to substantiate product conformity. The supplier shall execute this responsibility not only during its own operations but also in any procurement made in fulfillment of this order. It is the supplier’s full responsibility for promptly notifying Hughes Bros. Aircrafters Inc. when the requirements imposed on the purchase order cannot be fully met at any time or there is any conflict identified.
- 3.0 INSTRUCTIONS:** The Purchase Order will list by “Q” number each applicable quality clause. Review your Purchase Order for any “Q” clauses listed below. Suppliers are expected to review and understand these clauses to ensure compliance can be met prior to purchase order acceptance. Failure to comply with the imposed clauses could result in rejection by Hughes Bros. Aircrafters Inc. Receiving Inspection and Quality. The Quality Clauses are in addition to any special requirements noted on purchase order. The latest applicable revision level of each standard or specification noted within each Quality Clause shall be applied, unless otherwise noted. If you have any questions regarding these clauses, problems, concerns, request for additional information, please contact our Quality Assurance department. Do not accept any changes to the technical requirements, quantity, due dates, revision levels, and/or Quality requirements unless authorized via revised purchase order issued by the Hughes Bros. Aircrafters Inc. Buyer/Quality Department. Copy of this document containing purchase order clauses is available on our website www.hbai.com . Current revision of Purchase Order Clauses will be noted on Purchase Order provided.
- Q1 CERTIFICATIONS REQUIRED:** A Certification is required for all Special Processes with Applicable specification and revisions. A Certification of Conformance (“C of C”) is required, stating that all products or services as applicable meet or exceeds all requirements of the P/O or Contract. The certificate must list the following at a minimum: Title and specification number including the revision of the process, name and address of the certifying facility, buyers assigned processor number (if applicable) date the C of C was issued, Purchase order part number, qty. of parts that are being certified including parts that are rejected, Signature and title of authorized quality representative of seller, and fracture durability classification or serialization when required. List all of the drawings and/or specifications that formed the purchase order, as well as the amendment revision level of each document named (Lockheed only): *The previous listed requirements must be performed by a QCS-001 approved source* (Boeing only) *{the previous listed requirements must be performed by a D1-4426 approved source}*.
- Q2 CHEMICAL AND PHYSICAL TEST REPORTS:** Are required with each shipment, which states the specific results of the Material Tests and showing that the Material meets all specifications.
- Q3 TOOLING FIRST ARTICLE:** Acceptance of production tooling on this purchase order shall be contingent upon inspection and acceptance by Hughes Bros. Aircrafters Inc. The tooling and dimensional samples produced by this tooling must conform to the tolerance limits of engineering drawings and specifications stated on this purchase order. First article(s) must be inspected and accepted by Hughes Bros. Aircrafters Inc. prior to a production shipment unless specifically authorized by the buyer. First article(s) should be tagged or otherwise identified to show the tool used. A Copy of this inspection record is required with the shipment of product.

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- Q4 FIRST ARTICLE INSPECTION:** A First Article, complete with an inspection report must conform to the tolerance limits of engineering drawings and specifications stated on this purchase order, is required prior to commencing production. A Copy of this inspection record is required with the shipment of product. Any parts produced prior to approval of your FAI are produced at your own risk. AS9102 FAI Form and or CMM Inspection Report required when stipulated on the PO.
- Q5 FAI:** Verification optional prior to production run. However, a documented dimensional verification is required with shipment. The supplier assumes all financial responsibility for replacement, rework, and material when production of parts is begun without first article inspection approval from quality
- Q6 GOVERNMENT SOURCE INSPECTION:** GSI is required at your facility. Contact the Government representative that normally services your plant immediately upon receipt of this P/O or contract. Notify Hughes Bros. Aircrafters Inc. Purchasing when inspection has been coordinated.
- Q7 CUSTOMER SOURCE INSPECTION:** CSI is required at your facility. Contact Hughes Bros. Aircrafters Inc Quality Assurance Dept. at least 72 hours prior to the product being ready for inspection. Hughes Bros. Aircrafters Inc Quality Assurance Department will coordinate the required inspection by Hughes Bros. Aircrafters Inc Customer or Regulatory Agency.
- Q8 SPECIAL PROCESSING SUPPLIER / NDT SUPPLIER REQUIREMENTS:** Qualified Products, Qualified Personnel, Process Control, Control of Quality Records, Indication of Inspection Status and Adequate Work Instructions.
- Q9 AGE-SENSITIVE MATERIAL:** Certifications to include specification number, date of manufacture, Batch / lot number and recommended shelf life.
- Q10 MATERIAL SAFETY DATA SHEETS:** (MSDS) are required with shipment of all applicable controlled materials.
- Q11 100% INSPECTION:** 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. Sampling inspection is acceptable with an approved sampling plan for surface treatment. AS9102 Form 3 only or internal inspection form that meets AS9102 requirements are acceptable.
- Q12 INSPECTION REPORT REQUIRED:** Showing documented evidence of inspection and verification of all dimensions with actual results by your quality department (Inspection report should show variance of dimensions measured or results of measurements from an acceptable sampling plan). This shall be included with shipment of product.
- Q13 CONTRACT / DRAWING DIRECTED SOURCE / QUALIFIED PRODUCTS LIST:** This item / service is to be procured from a listed source.
- Q14 ROCKWELL HARDNESS / ELECTRICAL CONDUCTIVITY TEST:** Verification as applicable and certify with results per heat treat or other specifications.
- Q15 SERIALIZATION:** requirements are imposed. All parts have unique serial numbers assigned. Maintain S/N Tractability at all stages of manufacturing or processing. Indicate S/N's on all certifications, shipping reports and or documents.
- Q16 HUGHES BROS. AIRCRAFTERS INC. FURNISHED DOCUMENTS:** All Drawings, Specifications, Mylar's, or related data is to be returned upon completion of the P/O or Contract.

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- Q17 TECHNICAL OR PROPRIETARY DATA:** All data either electronic, hard copy, or product, provided to support manufacturing or processing of this order is proprietary and shall not be reproduced in whole or part, and shall be returned upon completion of the P/O or contract. When ITAR, EAR and/or other government rated data is noted on the purchase order, blueprint, or other manufacturing information, the US government restrictions/requirements must be followed. If you have any questions concerning export controlled items or government rating, notify the company buyer. All concerns must be addressed prior to the acceptance of this order.
- Q17A EXPORT AND IMPORT COMPLIANCE:** Export Compliance – General: Performance of this Order may involve the use of or access to articles, technical data or software that is subject to export controls under 22 United States Code 2751 – 2799 (Arms Export Control Act) and 22 Code of Federal Regulations 120-130 (International Traffic in Arms Regulations or “ITAR”) or 50 United States Code 2401-2420 (Export Administration Act of 1979, as amended), 50 United States Code 1701-1706, (International Emergency Economic Powers Act, as amended), and 15 Code of Federal Regulations 768 – 799 (Export Administration Regulations) and their successor and supplemental laws and regulations (collectively hereinafter referred to as the “Export Laws and Regulations”). Seller represents and warrants that it is either 1) a U.S. Person as that term is defined in the Export Laws and Regulations, or 2) a Foreign Person as that term is defined in the Export Laws and Regulations and has disclosed to Buyer’s Representative in writing the country in which it is incorporated/authorized/ organized to do business, and all nationalities of any dual or third-country national employees who will require access to the data, articles or services provided hereunder. Seller shall comply with any and all Export Laws and Regulations, and any license(s) issued there under.
- Import Compliance – General: Both parties shall comply with all U.S. Customs laws and regulations (e.g., 19 CFR) and all other applicable U.S. government regulations pertaining to importations of goods and materials into the United States. 1. For International Orders (Purchase Orders issued to entities addressed in foreign countries): Specifically, without excluding other regulations, Seller shall comply with and adhere to the commercial invoice requirements detailed in 19 CFR 141 subpart F of the regulations, and provide additional information as requested by the Buyer. Seller shall immediately upon discovery, notify Buyer of any change to the shipment data related to product valuation, quantities shipped, country of origin, port of export and any additional information directed by the Buyer. Seller will timely provide pre-alert shipping information and documentation prior to shipment arrival to the U.S. Buyer will direct Seller where to send pre-alert shipping information and documentation. Pre-alert shipping documentation includes, but is not limited to, a commercial invoice, airway bill, bill of lading, and other required documentation as directed by U.S. regulations and Buyer. 2. For Domestic Orders (Purchase Orders issued to entities addressed in the United States): Seller shall assume all U.S. import responsibilities, to include designation as U.S. Importer of Record, Customs clearance, duty, taxes, and fees for goods entering into the United States. Unless otherwise agreed in writing, Hughes Bros. Aircrafters or our customers will not assume any import liabilities for goods procured through a domestic purchase order.
- Q18 CUSTOMER-FURNISHED PROPERTY:** All tooling utilized in this order is Customer-Furnished and shall be returned with final shipment of parts or product.
- Q19 SUBCONTRACTING:** All or part of the work procured on this P/O without written approval of Hughes Bros. Aircrafters Inc. is prohibited. All approved subcontracted operations must meet all provisions of the P/O and be certified to by the subcontractor. The supplier must flow down to its supply chain the applicable HBAI requirements including customer requirements.
- Q20 RIGHT OF ENTRY:** Hughes Bros. Aircrafters Inc., our Customers, Government and Regulatory Agencies, shall have Right of Entry to applicable areas of all facilities, at any level of the supply chain involved to verify the Quality of work, all records and or materials at any time as deemed necessary.

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- Q21 FLOW-DOWN:** AS9100 Rev D / ISO 9001:2015 Aerospace Quality Management Systems Requirements.
- Q22 FLOW DOWN:** Boeing's D6-82479 Quality System Requirements are hereby imposed.
- Q23 FLOW-DOWN:** Northrop's (SQAR) Supplier Quality System Requirements are hereby imposed.
- Q24 FLOW-DOWN:** Vought's (SQAR) Supplier Quality System Requirements are hereby imposed.
- Q25 FLOW-DOWN:** Lockheed's Attachment "Y" Quality System Requirements are hereby imposed.
In addition, the Supplier must file and maintain a copy of all purchase orders containing the following statement "WORK TO BE ACCOMPLISHED IN PERFORMANCE OF THIS PURCHASE ORDER IS DIRECTLY RELATED TO A LOCKHEED MARTIN AERONAUTICS COMPANY P.O. AND MUST BE ACCOMPLISHED IN ACCORDANCE WITH PROCESS SPECIFICATION ON P.O. AND LOCKHEED MARTIN AERONAUTICS COMPANY APPENDIX QJ" and make these available for review by buyer, upon request.
- Q26 FLOW-DOWN:** D6-51991 Quality Assurance Requirements for Digital Product Definition are hereby imposed.
- Q27 Quality Management System:** AS9100, ISO9001, AS9003 or NADCAP AC7004. Hughes Bros. Aircrafters Inc. may make conditional exceptions based on supplier survey information or applicable end customer conditional approval.
- Q28 QUALITY SYSTEM FLOW DOWN:** Quality system requirements are flowed down to ensure that characteristics not verifiable upon receipt are adequately controlled by the subcontractor.
- Q29 SPC DATA REQUIRED WITH SHIPMENT:** _____ Control Plans _____ Control Charts _____ Histograms.
- Q29A** Supplier shall provide the original or photocopy of Certified Chemical and/or Physical Test Report (s) from an independent test lab, per applicable specifications. The report shall reflect the mill source of material. A1) Chemical, A2) Physical.
- Q29B** For Titanium purchases, the supplier shall provide certification as to the country of origin of the material provided. *No foreign-poured materials shall be submitted for use on the United States Military Aircraft. (Bell Helicopter: The starting raw material has been melted in the United States, its possession, Puerto Rico, or a country listed on the DFARS 225.872-1 attachment. NOTE: Applies to steel and titanium only.)*
- Q29C** Supplier shall comply with DFARS 252.225-7014 Alt 1– Preference for Domestic Specialty Metals or from Qualifying Country.
- Q30 CALIBRATION:** Seller's equipment shall be calibrated in accordance with ANS/ISO/IEC 17025, ANSI/NCSL Z540.3 ISO 10012, MIL-STD-45662
- Q31 MATERIAL CERTIFICATION/RECORDS OF INSPECTION:** Supplier shall provide original or photocopy of Certified Material Test Report ("CMTR") from the mill. The CMTR shall provide mill identity and mill tests and analyses of material.
- Q32 MATERIAL IDENTIFICATION:** All materials supplied under this purchase order must be identified with: A) Heat/lot number B) Specification C) Grade D) Alloy and Temper E) Mill marking including material type.

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- Q33 PACKAGING / PROTECTION:** Sheet stock shall be protected by appropriate material interleaved between individual sheets and on top and bottom surfaces of material. Supplier shall individually wrap or box items to prevent damage in transit. Supplier shall package items for shipment so as to prevent metal-to-metal contact of formed surfaces. Protective devices accompany materials or items when shipped to supplier; supplier shall maintain protection during processing, apply rust or corrosion protection as required and return all such items with return shipment.
- Q34 NONCONFORMANCE / CORRECTIVE ACTION:** The supplier shall have a system for investigating and implementing nonconformance, corrective and preventive action. A written request for corrective action will be issued from Hughes Bros. Aircrafters Inc. to the supplier when the root cause is the responsibility of the subcontractor. The response to Hughes Bros. Aircrafters Inc. includes: restatement of finding, immediate corrective action, root cause analysis, root cause correction, corrective action verification and follow-up.
- Q35 NONCONFORMANCE NOTIFICATION REQUIREMENTS:** The supplier shall notify Hughes Bros. Aircrafters Inc. within 24 hours, in detail, when nonconformity is discovered in the supplier’s processes or products that may affect product in process or already delivered. The supplier must obtain approval from Hughes Bros. Aircrafters Inc. for nonconforming product disposition.
- Q36 CHANGES:** Supplier must notify Hughes Bros. Aircrafters Inc. of any changes in product and/or process, changes of suppliers, changes of manufacturing facility location and, where required, obtain approval from Hughes Bros. Aircrafters or our customer’s approval.
- Q37 RECORD RETENTION:** Supplier shall maintain all records related to the issued purchase order for a minimum of 10 years. Supplier shall notify Hughes Bros. Aircrafters prior to destroying records.
- Q38 SUPPLIER RESOURCES:** Supplier resources, equipment, and number of trained personnel are adequate to perform verification activities that support the complexity of hardware or services provided.
- Q39 WRITE-IN REQUIREMENTS:** Any requirements not specified above shall be explained in detail here or in an accompanying document.
- Q40 NADCAP:** National Aerospace and Defense Contract Accreditation Program. Accreditation System Requirements are hereby imposed for special processes being performed.
- Q41 FOD:** Requirements for the supplier to flow down to the supply chain the applicable requirements, including customer requirements in HBAI purchasing documents, including key characteristics and applicable Foreign Object Damage/Debris (FOD) control processes where required.
- Q42 E13224:** Requirements for the supplier to comply with executive order E13224. Supplier shall not engage in any transaction of any type with persons or businesses or organizations who commit, threaten to commit or support terrorism.
- Q43 Counterfeit Parts:** Supplier must have a process to control counterfeit parts from being delivered to HBAI (A product produced or altered to imitate or resemble a product without authority or right to do so, with the intent to mislead or defraud by passing the imitation as original or genuine). Supplier must have a process for training and detection of counterfeit products in order to prevent the use and proliferation of counterfeit products.

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- Q44 Equal Opportunity CFR’s:** By acceptance of this purchase order, supplier and subcontractor(s) shall abide by the requirements of 41 CFR 60-1.4(a) (Equal opportunity clause), 41 CFR 60-300.5(a) (Equal opportunity for VEVRAA protected Veterans 3), 41 CFR 60-741.5(a) (Equal opportunity for workers with disabilities) These rules prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. These rules also prohibit, with limited exceptions, discharging or otherwise discriminating against any employee or applicant in employment because such. The same rules are applicable to the manufacturer and/or sale of goods purchased hereunder; or the contracting and/or subcontracting of services of work hereunder: 41 CFR 60-1.4(a) (for women and minorities) and 29 CFR Part 471, Appendix A to Subpart A (Employee rights under the NRLA).
- Q45 Defense Priorities and Allocations System:** This is a rated order certified for National Defense use and the supplier shall follow all requirements of the defense priorities and allocation system regulation (15 CFR 700).
- Q46 Conflict Materials:** All processing suppliers that use conflict materials (Tin, Tantalum, Tungsten, and Gold) must ensure that these materials come from a conflict-free source per the Dodd Frank Act Section 1502. An EICC Reporting template must be completed and sent to HBAI before the first shipment of product.
- Q47 Product Safety and Ethical Behavior:** Supplier must ensure that all its personnel are aware of their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.
- Q48 Cyber Security Compliance:** Compliance with NIST SP 800-171 is required in accordance with DFARS 252.204-7012. Compliance means suppliers must have completed at least a Basic Assessment in accordance with NIST SP 800-171 DoD Assessment Methodology or the Government performed Medium or High Assessment within the last three years for all covered contractor information systems relevant to its offer that are not part of an information technology system operated on behalf of the Government; and to the extent the supplier completed a Basic Assessment, it submitted its summary level scores, and other information required by paragraph (d) of DFARS 252.0204-7020, wither directly into the Supplier Performance Risk System (SPRS) or via encrypted email to webptsmh@navy.mil for posting to the SPRS. Flowdown of DFARS 252.204-7020, including paragraph (g), in all solicitations and contracts, with certain exceptions including solicitations or contracts solely for the acquisition of COTS is required. Suppliers subject to this requirement should take necessary measures for compliance with NIST SP 800-171, DFARS 252.204-7019, DFARS 252.204-7020, and DFARS 252.204-7021. Suppliers must be prepared to provide a representation and certification of compliance upon request (after Nov. 30, 2020).

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RECORD OF REVISION FOR

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ENTRY	REVISION	DATE	PARAGRAPH CHANGE	REASON FOR CHANGE
	NEW	8/01/2001	N/A	N/A
1	Rev A	8/06/2003	NEW ISSUE	ADDED Q36 FOR NADCAP ACCREDITATION REQ'S
2	Rev B	1/22/10	Q21 – Q38	Revised Q21: Removed D1-9000, Replaced with AS9100 B / ISO 9001:2000, Added Q24: Vought SQAR Flowdown, Added Q26: D6-51991 DPD Flowdown, Q22 – Q38 clauses subsequently re-ordered requirements.
3	Rev C	12/1/2014	Updated para 1.0 Purpose, added 2.0 Requirements and 3.0 Instructions. Revised Q4, Q5, Q12, Q17, Q21, Q27, Q30, Q35 and Q38. Added Q39, Q40, and Q41.	Q21 and Q30 noted obsolete or superseded standards. Removed AS9100 B / ISO 9001:2000, Replaced with AS9100 C / ISO 9001:2008. Removed ANSI/NCSL Z540-1-1194 and replaced with ANSI/NCSL Z540.3. Removed ISO 10012 revision level and added ANS/ISO/IEC 17025. Revised Q38 verbiage. Added notes to Q4, Q5, Q12, Q17, Q27, and Q35. Added Q39 FOD, Q40 E13224, and Q41 Counterfeit parts clauses.
4	Rev D	12/1/15	Q20 & Q35 Revised, added Q36 & Q37	Updated Q20 to include right of access at any level of the supply chain. Updated Q35 to include approval requirements for disposition of nonconforming product. Added Q36 for requirements of changes. Added Q37 for records retention requirements. Q Clauses renumbered Q38 – Q43.
5	Rev E	11/1/16	Revised Q17, added Q17A, Q44, Q45 and Q29C	Updated Q17 and added Q17A to clarify ITAR flow down, add Q44 to include Equal Opportunity CFR's and Q45 DPAS. Q29C added for DFARS for Domestic Preference of Specialty Metals.
6	Rev F	8/15/17	Revised Q19 and Q43, added Q46 and Q47	Updated Q19 Supplier Flow down, Updated Q43 for training and detection of counterfeit parts, added Q46 for use of conflict materials, and added Q47 Product Safety and Ethical Behavior.
7	Rev G	9/2/19	Revised Q21	Updated AS9100 Rev
8	Rev H	11/23/2020	Added Q48	Cyber Security Compliance per NIST SP800-171

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Approved By: Francisco Morales

Title: Q.A. Manager

Signature: SIGNATURE ON FILE **Date:** 11/23/20

Approved By: Tim Whitaker

Title: General Manager

Signature: SIGNATURE ON FILE **Date:** 11/23/20

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