

ADVANCED CUSTOM MANUFACTURING

Purchase Order Quality Clauses

Q01 INSPECTION and TEST SYSTEM REQUIREMENTS

The supplier shall establish and maintain an Inspection and Test System. The supplier's Inspection and Test system is subject to audit, verification and approval and/or disapproval by Advanced Custom Mfg. designated representative(s). Supplier Quality and Delivery Performance are monitored.

Q02 MRB AUTHORITY

Material review board authority is not authorized on this purchase order.

Q03 APPROVAL and CHANGES

The supplier shall notify the buyer of any proposed changes in the design, fabrication method, or processes previously approved by the buyer and/or the buyer's customer and obtain written approval of the changes from the buyer and/or the buyer's customer.

Changed Parts/Products shall be clearly identified in a different manner from the previous Parts/Products.

Q04 RAW MATERIALS

Raw materials shall be accompanied with certifications, chemical and/or physical test results. The supplier shall certify to the specific requirements defined on the face of the purchase order.

Q05 IDENTIFICATION AND DATA RETRIEVAL

Where and to the extent that traceability is a specific requirement, the supplier shall apply a unique identification to the individual product, material or batch. This identification data shall be recorded on and traceable to related suppliers' records (see supplier quality records).

Q06 SHELF LIFE AND TEMPERATURE SENSITIVE MATERIAL

The supplier shall identify all materials which have definite characteristics of quality degradation due to age or environment. The supplier shall indicate on the material or container the expiration date and storage conditions required to achieve the stated life. Shelf-life items must have at least 85% of their shelf life remaining at time of receipt.

Q07 SUPPLIER QUALITY RECORDS

The supplier shall maintain suitable inspection and test records to serve as evidence of conformance with specification requirements. Such records shall be legible and traceable to the product involved. These records shall be maintained for a minimum period of seven (7) years from the date of final manufacture or as stated otherwise in the contract.

Q08 SUBMISSION and RESUBMISSION OF NONCONFORMING ARTICLES OR MATERIALS

Do not send nonconforming products or material to Advanced Custom Mfg. without prior written authorization. Nonconforming articles and/or materials returned by the buyer and

subsequently resubmitted by the supplier shall bear adequate identification of such nonconformance, either on the articles, materials or applicable suppliers' records. The supplier shall provide evidence that cause of the nonconformance has been corrected and that actions were taken to preclude any reoccurrence.

Q09 ACCESS to SUPPLIER'S FACILITIES

During contract performance, the supplier shall grant reasonable access to all the supplier's facilities to representatives of Advanced Custom Mfg., ACM' customers, US government and/or regulatory agencies for the purpose of evaluating supplier's conformance to all PO/Contract requirements. When applicable, the access requirement shall be flowed-down by the supplier to the supplier's sub-tier sources.

Q10 FIRST ARTICLE AT SUPPLIER ACTIVITY

Supplier shall perform a First Article inspection in accordance with the requirements set forth. Supplier shall forward one (1) copy of the First Article inspection report to the buyer.

Q11 CERTIFICATE OF CONFORMANCE

Processes or validation of process – Supplier shall provide evidence that the processes requested in this purchase order were performed by approved sources. Such evidence shall be maintained on file by the supplier. Included with each shipment to the buyer shall be a certificate of conformance indicating as a minimum the process description, process number, name and address of the process supplier, the purchase order and part number. **Raw Material** – At a minimum, Certificate of Conformance for raw material shall include the appropriate information for traceability, the chemical and/or physical test specification, and actual chemical and/or physical test results.

Q12 MATERIAL TRACEABILITY

Identification of each piece of material and report is required by specification to provide traceability to heat treat, lot or batch number.

Q13 GRAIN DIRECTION IDENTIFICATION REQUIRED (where applicable)

Q14 KEY CHARACTERISTICS, CRITICAL ITEMS AND SPECIAL REQUIREMENTS

Suppliers are required to monitor and control key characteristics, critical items and special requirements. Identified on the controlling print. Supplier is required to maintain records of the monitoring data.

Q15 REQUIREMENTS for QUALIFICATION of PERSONNEL

Where applicable, only qualified/certified personnel shall be used based on process specification requirements (NDT, etc.). Records shall be maintained of the personnel qualifications/certifications.

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Q16 SUPPLIER NOTIFICATION OF NONCONFORMING PRODUCTS DELIVERED TO ACM.

When the supplier has determined that nonconforming products have been delivered to Advanced Custom Mfg., the supplier shall notify Advanced Custom Mfg. within twenty-four (24) hours of the initial discovery. The supplier shall use receipt acknowledgement e-mail or other positive notification method. The notification shall include the supplier's name, Advanced Custom Mfg. PO/Contract number, part number and description, affected quantity and serial numbers (if applicable), dates delivered (if known), brief description of the nonconforming condition.

Q17 CONTROL OF SUB-TIER SOURCES

The supplier, as the recipient of the PO or Contract, is responsible for meeting all PO/Contract specified technical, delegated testing, Customer Designated Sources, inspection, special processes, and quality requirements, whether the supplier performs the work, or the work is performed by the supplier's sub-tier sources. When the supplier uses sub-tier sources to perform work on products and/or services scheduled for delivery to Advanced Custom Mfg., the supplier shall include (flow-down) on Purchase Orders or Contracts, to their sub-tier sources, include all applicable requirements of the Advanced Custom Mfg.' PO or Contract, including when applicable the requirement to document and control "key processes", and to furnish certifications and test reports required by the applicable PO clauses.

Q18 APPROVAL AND VALIDATION OF PRODUCTS, PROCEDURES, PROCESS, AND EQUIPMENT

ACM will specify in the body of the PO when approval of product, procedure, process and equipment is required. When validation of a process for production is stipulated on a purchase order, the supplier (or sub-tier supplier) is required to maintain records that demonstrate the ability of the process to achieve planned results. The supplier is required to provide a Certificate of Conformance. The records shall include, as applicable:

- Defined criteria for review and approval of the processes.
- Qualification and approval of special processes prior to use.
- Approval of equipment and qualification of personnel.
- Use of specific methods and procedures.
- Control of the significant operations and parameters of special processes in accordance with doc. process specifications and changes thereto.

Q19 FOREIGN OBJECT DEBRIS (FOD)

To preclude introduction of Foreign Object Debris into any deliverable product/item. Supplier shall employ good housekeeping practices and must maintain a FOD prevention program that meets the requirements of **AS9146**. FOD is defined as any substance or material not required by the Purchase Order or Drawing.

Q20 COUNTERFEIT AVOIDANCE

Supplier must establish and implement the activities necessary to assure the authenticity and conformance of purchased material. These activities include counterfeit avoidance systems per AS6174 (Material) or AS5553 (Electronics Parts) (or equivalent), traceability and document verification, visual examination and applicable inspections and tests. Supplier must ensure that persons are aware of their contribution to product or service, product safety, and the importance of ethical behavior. Any knowing and willful act to falsify, conceal or alter fact, or any false, fraudulent or representation in connection with the performance of work under this purchase order may be punishable in accordance with applicable legal statutes.

Q21 COMBATING TRAFFICKING IN PERSONS

The United States Government has a zero-tolerance policy regarding trafficking in persons under FAR clause 52.222-50. It states, contractors and contractor employees shall not (1) Engage in severe forms of trafficking in persons during the period of performance of the contract; (2) Procure commercial sex acts during the period of performance of the contract; or (3) Use forced labor in the performance of the contract. This clause pertains to both contractors and subcontractors during the period of performance of the contract. Suppliers shall notify Advanced Custom Mfg. of any information received from any source that alleges conduct that violates this policy. Advanced Custom Mfg. will notify the contracting officer of any violations to improve awareness and implement any remedies necessary as defined in FAR clause 52.222-50.

Q22 EXPORT CONTROL (ITAR FLOWDOWN)

All parties involved will comply with United States export control and sanctions laws, regulations, and orders, applicable to the export and re-export of goods, software, technology, or technical data ("Items") or services, including without limitation the Export Administration Regulations ("EAR"), International Traffic in Arms Regulations ("ITAR"), and regulations and orders administered by the Treasury Department's Office of Foreign Assets Control (collectively, "Export Control Laws"). All license requirements imposed by ITAR are the sole responsibility of the subcontractor in possession of the purchase order.

Q23 DPAS REQUIREMENTS

This order is a government rated contract. Federal law requires these orders to take preference over all unrated orders as necessary to meet required delivery dates. Persons receiving rated orders must give them preferential treatment as required under Government Regulations DPAS 15CFR700

Q24 DFARS 252.225-7014 COMPLIANCE

Seller requires the following;

- Special metals must be melted in the United States or a qualifying country.
- Material certificate must demonstrate this fact.
- Sub tier suppliers must submit DFARS requirements.

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Q25 NADCAP ACCREDITATION OF SPECIAL PROCESSES

Suppliers performing special processes identified below shall be accredited by the National Aerospace and Defense Contractors Accreditation Program (NADCAP). Special processes requiring NADCAP accreditation:

- Heat treatment
- Non-destructive testing
- Chemical processes (e.g., chemical milling, chemical conversion coat, anodize, prime, paint)
- Welding
- Brazing
- Shot peening
- Material testing by independent test laboratories

Q29 – TESTING

Test results are to be furnished upon completion of the required tests. The report document can be in any format unless otherwise designated on the purchase order. Traceability shall be maintained on all lots throughout processing.

Q26 THIRD PARTY MATERIAL TEST REPORT REQUIRED

Supplier shall send a sample of the material to an independent third-party laboratory for analysis. Certifications of chemical, physical, mechanical and/or analytical test results are required in accordance with the applicable material specification for each item delivered.

Certifications shall include:

- Testing laboratories name and address
- Reference to the ACM purchase order number
- Date of testing
- Reference to the specification(s) and revisions as noted.
- Reference to lot number, heat lot number and/or batch number of the raw material.

Q27 GIDEP ALERT AND PROBLEM ADVISORIES

The supplier shall participate in the Government-Industry Data Exchange Program (GIDEP) per requirements of the GIDEP S0300-BT-PRO-010 and S0300-BU-GYD-010, available from the GIDEP Operations Center, PO Box 8000, Corona, CA 91718-8000. The supplier shall review GIDEP Alerts, GIDEP Safe-Alerts, GIDEP Problem Advisories, GIDEP Agency Action Notices, and NASA Advisories to determine if they affect the supplier's products/services provided. For those that affect the program, the supplier shall take action to eliminate or mitigate any negative effect to an acceptable level. The supplier shall generate the appropriate failure experience data report(s) (GIDEP Alert, GIDEP Safe-Alert, GIDEP Problem Advisory) whenever failed or nonconforming items, available to other buyers, are discovered during the course of the purchase order.

Q28 DIGITAL PRODUCT DEFINITION (Boeing)

The supplier shall adhere to Boeing's process specification D6-51991 (<http://www.boeing.com/supplier/D6-51991.pdf>), Quality Assurance Standard for Digital Product Definition at Boeing Suppliers. This includes all process controls, sub-tier documents and first article reporting (FAI) requirements.