

## Purchasing Quality Requirements

### **Quality Assurance Clauses:**

The following Quality requirements are applicable to suppliers based on products and services as provided. It is responsibility of the external supplier to provide documentation identified below as a part of the quality required documentation based on the applicability of the product or service being provided; or make such records available when requested from UAC.

**QM2 Inspection Report:** Inspection report will include all characteristics within the documents provided by UAC including:

- Supplier name and address.
- Part Number.
- Supplier review and approval signature and/or stamp.
- Hardness test results if applicable.
- Quantity of material accepted and/or rejected if applicable.
- Dimensions results as applicable.

**QM 3 First Article Approval:** One sample part of the first lot is required from the contractor and must be approved by UAC Quality/Metallurgical department prior to initiating the production run. Arrangements shall be made with UAC prior to completion of the first article to determine the logistic of UAC approval of the first article.

**QM4 Test Reports and/or Certification of Conformance:** When Test reports / Certification of Conformance are required for the order they must include the following minimum information:

- Supplier name and address.
- UAC purchase order number.
- UAC lot number.
- Part Number.
- Name of process or test performed.
- Process or test specification, revision letter, type, class, method, etc., as applicable.
- Quantity of material accepted and/or rejected if applicable.
- Test results as applicable.

Certification / Test report must be received within 48 hours upon completion of the test or service (Applicable to the Canton, GA facility only).

**QM5 Process / Inspection Approval (Fix Process):** Parts must be manufactured to a procedure / inspection plan approved by UAC. Any changes to established processes, manufacturing location

must be communicated in writing to UAC. Approval of such changes are required by UAC prior to implementation of changes.

**QM6 UAC Source Inspection:** Source Inspection requested shall be conducted by UAC at the contractor's facility prior to shipment of the parts. The contractor shall notify UAC Quality/Metallurgy department prior to the start of fabrication so that mandatory tests and/or inspection points can be agreed upon. First Article data will be available to the source inspector for review and/or physical verification.

**QM7 Special Processes:** All Special are to be maintained according to the specific requirements and shall include; but not limited to the qualification of those processes, procedures and personnel.

- **Liquid Penetrant Inspection** Test to ASTM E1417, Type I, Method A, Sensitivity 3, reject for linear indications only unless otherwise specified on purchase order.

**QM10 Calibration Control:** Calibration must be performed to ISO 10012, ANSI/NCSL.Z540-1, ISO 17025 or the equivalent specification. All standards used must be traceable to a NIST standard. Certificate of Calibration is required. Subcontractors shall include reporting of "out of tolerance" condition.

- Calibration test reports conforming to ISO17025 must include at least the following, unless the calibration laboratory has valid reasons for not doing so, thereby minimizing any possibility of misunderstanding or misuse:
  - A title (e.g. Calibration Certificate)
  - The name and address of the laboratory
  - The location of the performance of the laboratory activities, including when performed at customer sites away from the laboratory's permanent facilities, or in associated temporary or mobile facilities
  - Unique identification that all its components are recognized as a portion of a complete report and a clear identification of the end
  - The name and contact information of the customer
  - Identification of the method used
  - A description, unambiguous identification, and, when necessary, the condition of the item
  - The date of receipt of the test or calibration item(s), and the date of sampling, where this is critical to the validity and application of the results
  - The date(s) of performance of the laboratory activity
  - The date of issue of the report
  - Reference to the sampling plan and sampling method used by the laboratory or other bodies where these are relevant to the validity or application of the results

- A statement that the results relate only to the items tested, calibrated, or sampled
- The results with, where appropriate, the units of measurement
- Identification of the person(s) authorizing the report
- Clear identification when results are from external providers
- The measurement uncertainty of the measurement result presented in the same unit as that of the measurand or in a term relative to the measurand (e.g. percent)
- The conditions (e.g. environmental) under which the calibrations were made that have an influence on the measurement results
- A statement identifying how the measurements are metrologically traceable
- The results before after any adjustment or repair, if available
- Where relevant, a statement of conformity with requirements or specifications
- Where appropriate, opinions and interpretations

**QM12 Applicable Specifications as defined below:**

<b>SPECIFICATION(s)</b>	<b>APPLICABLE TO</b>
Manufactures Specification and ASTM E317, MIL-STD-2154 / AMS-STD-2154, BSS 7055, BSS 7052, BAC 5439, PS21211, DPS 4.713, ASTM B 594, AITM6-0013	Calibration of UT Equipment
ASTM E 1065	Calibration of UT Transducers
AMS 2750	Calibration & Purchase of Temperature Devices and Thermocouple Wire Controlled by AMS 2772 & AMS 2750
AMS 3025	Purchase of Quenchant Additives
ASTM E18 (Rockwell Tester) ASTM E 110 (Portable Testing Equipment)	Calibration of Hardness Testers
ASTM E 127	Calibration of NDT Standards
ASTM E 83	Calibration of Extensometers
ASTM E 1012, AC7101/3	Calibration of Tensile Test Equipment
Aluminum Association Alloy Limits	Standardizing Standards for Spectrograph Equip

Manufacturer Specifications	Cleaning/Service inspection equipment
ASTM E 1951	Calibration of Reticles and Light Microscope Magnifications equipment
ANSI/NCSL Z540-1 MIL-STD-1537 Manufacturer Specifications	<p>All conductivity meters and applicable standards used for standardization of conductivity meters.</p> <p>When the following frequencies are available for calibration, calibrate conductivity meters to the following frequencies: 60 kHz and 500 kHz or 60 kHz and 480 kHz.</p> <p>When the conductivity meter's frequency cannot be manually varied, calibrate conductivity meters to the following frequency: 60 kHz.</p> <p>Conductivity meter calibration shall be done according to the requirements of MIL-STD-1537 at each required frequency listed above.</p> <p>Note: MIL-STD-1537 calls for a complete calibration in addition to lift-off and drift testing.</p> <p>At a minimum, testing points shall be (1) 5.00-20.00 %IACS, (2) 20.01-40.00%IACS, (3) 40.01-60.00 %IACS, (4) 60.01-110.00 %IACS</p>

APPLICABLE TERMS AND CONDITIONS:

**Universal Alloy Corporation Acceptance at Destination** Articles ordered on this contract are subject to final acceptance at destination.

**Variation in Quantity** No variation in quantity of items ordered, unless otherwise approved by Universal Alloy Corporation Purchasing. When approval is not provided delays or acceptance of invoicing may result.

**Warranties** The seller warrants that all articles or materials delivered hereunder shall be free from defects of material or workmanship and guarantees all parts furnished will conform to specifications and/or drawings. The warranties of the Seller together with its service warranties and guarantees, if any, shall run to Buyer and/or its customers.

**Termination for Cause or for Convenience of Buyer** Buyer reserves the right to terminate this order if not filled in accordance with delivery schedule and specifications. In the event of any suspension of payment or the institution of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or under the provisions of the United States Bankruptcy act, as amended, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors of either party, or in the event of a breach of any of the terms hereof, including warranties of Seller, the other party shall be entitled to terminate this order forthwith.

**Compliance with Laws** - Seller agrees on accepting this order that the same is subject to and that Seller has complied with or will comply with all applicable local, State, and Federal laws, regulations, and executive orders as to labor, origin and procurement of material, national security, fixation of prices, profit limitation, price renegotiation, and price predetermination.

**Non-discrimination** In connection with the performance of work under this order, the Contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color or national origin: and further agree to insert the foregoing provision in all subcontracts hereunder except subcontracts for standard commercial supplies or for raw materials. (Not applicable if order is for standard commercial supplies or for raw materials.)

**Right of Entry** The buyer and the buyer customer do hereby reserve the right to inspect records and any or all work completed as part of this purchase order requirement at seller's facility. Seller's manufacturing plant and books, or such part of any plant that may be used in furnishing the articles ordered, will always be subject to inspection and audit by any person designated by the head of any Regulatory Agency or the Government.

**Renegotiation Act of 1951** This purchase order is subject to the Renegotiation Act of 1951 and shall be deemed to contain all the provisions required by Section 104 of said Act.

Department of Labor Statement and Compliance – This contractor and subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a), 60-741.5 and 73 FR 67704. These regulations 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, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

**Compliance with AS9100** The Seller agrees to follow AS9100, design ***and development control, prevent use of counterfeit part, disposition of records, ensuring that persons are aware of their contribution to product and service conformity, product safety and ethical behavior.***

**Changes-** The Seller agrees to notify UAC of changes in product and/or process definition, changes of location of manufacturing and where required, obtain UAC approval.

**Specifications** The latest revision of any noted specifications shall apply.

**Inspection System Requirement for ISO-9001 and/or AS-9100 or equivalent specification-** The contractor inspection system shall conform to the requirement of ISO-9001 and/or AS-9100 and is subject to the review and approval at all times by UAC Quality/Metallurgy Department. If the contractor is furnishing material or services not of its own manufacture, the manufacturer must be compliant to ISO-9001 and/or AS-9100 and/or NADCAP.

**Subcontracting** This item shall not be subcontracted without approval from UAC Quality/Metallurgy Department.

**Material Safety Data Sheet (MSDS)** The supplier shall provide a material safety data sheet when available.

**Conflict Minerals; Section 1502 Dodd-Frank Act** UAC does not currently utilize the identified metals (minerals) as noted in the Dodd-Frank Act Section 1502 within our products. These identified metals include tantalum, tin, tungsten, and gold. UAC supply base and subcontractor shall abide by the requirements of section 1502 Dodd-Frank Act, prohibiting the use of these 4 metals in product supplied to UAC.

**Application of Acceptance Authority Media (AAM):** Seller shall comply with the AS/EN/JISQ 9100 requirements and 14CFR Part 21.2 regarding the application of the Acceptance Authority Media (AAM) requirements. Seller shall, within its organization and its supply chain, ensure that the use of AAM is clearly defined within its Quality Management System (QMS). Seller shall, upon Boeing request, be able to demonstrate evidence of communication to its employees and to its supply chain; use of AAM must be considered as a personal warranty of compliance and conformity. Seller shall maintain compliance to the AAM requirements by assessing its process and supply chain as part of its internal audit activities. The areas of focus of this assessment shall include but not limited to:

- Authority Media Application Errors (i.e. Omission, Typos, Legibility, etc.)
- Authority Media Application Untimely Use (i.e. Documentation is not completed as planned, "Stamp/Sign as you go", etc.)
- Authority Media Application Misrepresentation (i.e., uncertified personnel, Falsification of documentation, Work not performed as planned, etc.)
- Authority Media Application Training Deficiencies (i.e. Ethics, Culture awareness, Proper Use of authority media, etc.)

**Prevention of Counterfeit Parts:** The Supplier has the requirement to detect, mitigate, disposition and avoid the use or purchase of counterfeit parts, and notify UAC buyer if counterfeit parts have been shipped. The Supplier should utilize and reference AS5553/AS6174 for guidance.

**Traceability:** The Supplier shall establish and maintain a documented system for traceability of all products.

**Nonconforming Products:** Any Nonconforming product found by the supplier post-delivery requires notification to the UAC Quality Department.

**Record retention** The Seller shall retain records requested which show compliance to the requested process, product and/or service provided for 7 years.

**Special Gages** Any special gages used for acceptance are to be approved by UAC Q.A. prior to use.

**Applicable Standard Tolerances (Unless otherwise stated on the PO)**

<b>Product, Item, or Equipment</b>	<b>Required Tolerance</b>
Calipers	± .002 inch
Micrometers	± .001 inch
Protractors	+/-30 Min.
Straight Edges	± .0002 inch per foot.
Radius Gages	± .002 inch
Electrical Conductivity Meters	± .5% IACS
Hardness Testers	Refer to ASTM standard E18-17- table A1.3
Inspection Beams	± .001 per foot
Surface Plates	Refer to GGG-P-463C Federal specification, Granite Surface plate
Gage Blocks	± 2 micro inches
Honeywell Controllers (On Age Ovens etc.)	± 1 ° F
Extensometers	± .05% of Gage Length