



CTL AEROSPACE, INC.

Supplier Quality
Requirements

Rev: 08

Scope

The Supplier Quality Requirements (SQR) document details CTL Aerospace Systems' quality requirements and expectations. This document forms a part of the CTL Aerospace purchase order, unless otherwise specified herein. It contains general information and specific quality requirements of CTL Aerospace.

Quality System Requirements

Supplier must have an accredited quality system, unless otherwise specified and agreed upon, as specified in Table 2 or as otherwise specified in customer governing specification listed in Table 1. If end use customer is not specified on the CTL PO or within the CTL PSpec flow down, then supplier shall requirements as listed in Table 2. In addition to the QMS accreditations specified in Table 2 or Customer Specification, compliance to AS13100 is required, with the exception that AS13100 Chapter B and C are not applicable to legacy programs. AS13100 supplemental requirements applicability are a stated in Table 1 of AS13100 standard.

Supplier shall provide access to relevant data within OASIS and Nadcap Databases to CTL Aerospace. Suppliers shall forward a copy of their Quality Management System certifications to their CTL buyer. Certifications must clearly and accurately contain the name, address, city, and state of the business under registration. Any changes to the certification such as a change of the Certification / Registration Body, update, withdrawal, or disapproval or changes in business operations must also be forwarded to CTL buyer immediately.

Suppliers performing a service that is considered a Special Process (i.e. Heat Treating, Chemical Processing, Coatings, Non-Conventional Machining, Welding, NDT, Materials Testing, etc), the Quality Management System accreditation must meet end use customer requirements as specified in the referenced specifications in Table 1. If end use customer is not specified on the PO, then supplier performing service must meet the requirements specified in Table 2 for special processors. Suppliers shall be Nadcap approved for special process, unless otherwise specified and agreed upon, and be on end use customer approval list when required.

General Requirements

Any instrument used to measure product characteristic(s) must be under calibration control in accordance with ISO 10012-1, or equivalent, traceable to NIST.

Seller shall submit any alterations / changes to materials and / or processes, suppliers, key personnel, or facilities to buyer for approval before implementation of changes.

Seller shall flow down all quality requirements from Buyer and through us from our customers to their sub-tier suppliers. This includes contract ratings where the end user is the Department of Defense.

Seller is required to retain Quality Records not supplied to Buyer in accordance with end user specifications listed in Table 1 or if end use customer not specified, for a minimum of three (3) years after which the Seller will contact Buyer prior to disposal of any records.

CTL Aerospace, Inc. and its customers, including regulatory agencies, third parties mandated by the customer and contracting parties accompanying the customer representatives have the right of entry into the suppliers' facilities to determine and verify quality of work, records, and material including any subcontracted product/services. Right of entry includes access to the applicable areas of organization facilities as well as related supplier or business partner facilities. Where access is restricted due to export control technical requirements or organization intellectual property concerns, the organization shall facilitate to allow the customer or regulatory agency to fulfill their mandate.

Any restrictions to right of access to the suppliers facility requires a development of risk analysis and mitigation plan between the supplier and CTL Aerospace.

Unless otherwise specified, all specialty metals must be melted in the United States or qualifying countries in accordance with DFAR 252.225.7008 or DFAR 252.225.7009 as applicable to purchased product.

Government Source Inspection

Deliverable products may be subject to Government oversight during the performance of this Purchase Order prior to shipment when specified on the PO.

Proof of Government oversight shall be included with the shipment of materials. Proof may include but is not limited to physical/ digital signatures that are identified as a DCMA representative, DoD stamp on the shipping documents, or letters/e-mails from DCMA.

If the government representative's visit results in a rejection of the material, the supplier shall notify the Supplier Quality representative immediately. If a DCMA CAR is issued as a result of the rejection, a formal Notification / Disclosure shall be initiated.

Certification Requirements

Supplier shall provide a Certificate of Conformance (C of C) assuring that all work performed in connection with the purchase order conforms to requirements therein. The C of C may be a separate document or included on the packing sheet. When a C of C is used for certification, it shall have all the relevant information regarding the parts being certified, such as purchase order, part number, revision, serial number (if applicable), MRB/Concession Numbers (if applicable), signature and date.

Certifications that have MRB/Concessions associated; the MRB/Concession number shall be referenced on the Certificate along with copy of dispositioned MRB/Concession document(s).

Certifications for materials used are required to be included with shipment and shall be from the original material manufacturer.

Certifications for special processes performed at supplier sub-tiers are required to be included with shipment.

When a specification requires testing, a test report is required to accompany the C of C. Supplier is responsible for review of end user requirements regarding approved testing laboratory requirements and agrees to utilize approved testing laboratories as required.

Material and Special process Test Results shall reflect all requirements of the drawing and/or specification and conform to the drawing and/or specification limits. Documented evidence of this conformity including listing of each material element or test result in the applicable test report. The Applicable test report shall be signed by a cognizant test laboratory person.

Nonconforming Material Control

Nonconforming material must be identified and documented, segregated, or bonded, pending disposition when found, to prevent its unintended release or use, and evaluated to determine the actions necessary to contain its effect on other processes or products.

The supplier's disposition authority of nonconformances is limited to rework to specification, return to supplier and scrap. These terms are defined as follows:

- 1) Rework - Restore material to specification compliance in accordance with required process(s) and addressed by governing process specification(s). Parts subject to subsequent processing

not authorized by specification shall be submitted to CTL Aerospace to review and submit to end use customer for disposition. Specific rework instructions shall be provided with Rework dispositions.

- 2) Return To Supplier - Return of subcontractor product found to be discrepant for subsequent rework or replacement.
- 3) Scrap - Permanent removal from production and destruction of product found to be unfit for use. Scrapped product shall be segregated or bonded and controlled until destroyed. When CTL has notified supplier of a disposition of "Scrap" the material shall be physically rendered unusable within 72 hours (three working days, weekends excluded) after receipt of the disposition.

Supplier will notify CTL Buyer within twenty-four hours when there is a possibility that any nonconforming material has been shipped. The notification will include clear details of the nonconformance, listing of suspect parts (including serial number(s), lot number(s), manufactured date(s), quantity, delivery date, immediate corrective action, and listing of any similar parts which may be affected within 2 business days of any suspected nonconforming product. Nonconforming material detected prior to shipment will be held until disposition is received from Buyer.

FOD Prevention Program

Supplier shall have a documented FOD program that meets the requirements stated in AS9146.

Counterfeit Part Prevention

Supplier shall have a documented counterfeit part prevention program that conforms to the requirements stated in AS5553 and/or AS6174 as applicable. The process shall include a mechanism for reporting counterfeit parts to the organizations purchasing representative within 3 working days of it being confirmed.

PRODUCT SAFETY

Seller expected to develop, implement, and maintain effective policies and training programs to ensure that their employees are aware of their relevant contribution to the quality, safety and conformity of their products and/or services.

Table 1

CTL End Use Customer Requirements

CTL End Use Customer	Specification Reference	Specification Revision
AvioAero	S-Spec-1 (S-1000)	Dated 8/15/2023
Bell	SQRM-001	Rev F
Collins Aerospace	UTC ASQR-01 ⁽¹⁾ UTC ASQR-20.1 (Sampling) ⁽¹⁾ COL-ASQR-PRO-0003 HSM17 HSM19 HSM236	Latest Revision Latest Revision 04 Rev AB Rev B Rev D
General Electric	S-Spec-1 (S-1000) S-Spec-2 (S-1001) S-Spec-3 (S-1002)	Dated 8/15/2023 Dated 1/6/2023 Dated 11/2/2023
KHI	KQ7201 KQ7266 KQ7401 PQP -101 PQP -102 PQP -104 PQP – 109	Rev W Rev B Rev B Rev E Rev B Rev B Rev B
MRA Systems, LLC	S-Spec-1 (S-1000)	Dated 8/15/2023
Northrop Grumman	SQAR ⁽²⁾	Latest Revision
Pratt and Whitney	ASQR-01 ⁽¹⁾	Latest Revision
Rolls Royce	SABRe ⁽³⁾	Latest Revision

(1): For UTC Member (Pratt and Whitney / Collins) see the following link for the latest revision of documents:

<https://www.rtx.com/suppliers/United-Technologies-Suppliers/United-Technologies-ASQRD>

(2): For Northrop Grumman see the following link for the latest revision of documents:

<https://www2.northropgrumman.com/suppliers/Pages/QualityDocs.aspx>

(3): For Rolls Royce see the following link for the latest revision of documents:

https://suppliers.rolls-royce.com/GSPWeb/appmanager/gsp/guest? nfpb=true& pageLabel=portal_gsp_portal_page_6& nfls=false

Table 2
QMS Certification Requirements

Organization Type	Acceptable Systems
Type 1: Make to Print and Type 2A Design and Manufacture Manufacture, inspect, test, and certify the conformance of semi-finished and/or finished products (installed on aerospace engines or a component of such a product) to proprietary engineering drawings whether customer design, or organization design.	9100 Registration
Type 2B: Design Only Contracted Design responsible Organization/Partner/Supplier Tasks Organizations	As defined by Customer Requirements
Type 3: Distributor	9120 Registration
Type 4: Special Process As part of an organizations manufacturing scope and/or Special Process Houses	Nadcap or Customer's Requirements
Type 5: Raw Material Manufacture, inspect, test, and certify the conformance of Raw material to proprietary engineering specifications	ISO 9001 Registration
Production Shop Assist Only Offload of planned manufacturing operations	Per Organizations requirements based upon scope of work, unless specified by the customer
External Calibration or Laboratory Services	ISO/IEC 17025 or National Equivalent (i.e NIST)
Industry Standard Part or Industry Standard Raw Material Manufacturer	ISO 9001 Registration
Casings and Forgings Produced by proprietary design	9100 Registration
Tooling Manufactures	Per Organizations requirements based upon scope of work, unless specified by the customer

Note: The organization shall be certified by an industry recognized and accredited QMS Certification Body for the associated scopes specified in above Table.

Revision History

Rev 00 New Release 6/16/2021

Rev 01: Added KHI Specification PQP 109 to Table 1.

Rev 02: Revised KQ7266 to Rev B

Rev 03: Added AvioAero and MRA Systems LLC to Table 1.

Rev 04: Updated Table 1 Spec Revisions for the following: S-Spec-1,2 & 3, COL-ASQR-PRO-0003, HSM17, HSM236, KQ7201,PQP-101; Updated Table 2; Updated The following areas for AS13100 implementation and compliance: Quality System Requirements, General Section Requirements, Certification Requirements, Added FOD Program requirements.

Rev 05: Added MRB/Concession requirements to certifications section; added KQ7406 to Table 1.

Rev 06: Corrected Typo from KQ7406 to KQ7401 in Table 1

Rev 07: Updated Table 1 Collins Aerospace COL-ASQR-PRO-0003 to Rev 04 and Updated KHI KQ7201 to Rev W. Added exception to AS13100 Chapter B and C are not applicable to legacy programs.

Rev 08: Updated Table 1 S-Spec-1 rev to 8/15/2023 for all references and S-Spec-3 rev to 11/2/2023; Updated Bell SQRM-01 to Rev F.