



Revision Record:

A	N/A	Initial release
B	N/A	Addition of QC-24-27
C	N/A	QC-06 record retention change
D	N/A	QC-28 added, revise QC-22 Right of Entry
E	N/A	QC-14 Revised, QC-29 Counterfeit Detection
F	N/A	add QC-30 GE add QC-31 Digital Data Control
G	N/A	QC-04a/b separated and defined, update of QC-23, rev of QC-01, QC-07, add QC-27b.
H	2/27/2018	Added QC-33 per CAR-17-04.
I	8/30/2018	Revised QC-01, QC-02, QC-18A, QC-21, QC-07, QC-29, QC-32 Revised QC-33 to include notice of supplier monitoring and measurement activities.
J	6/21/2020	Revised QC-18A (rename)+ AS6174, AS9146, Revised QC-14 to include references to AS9146, NAS412, QC-29 to add details related to AS6174, Updated language in QC-26, QC-17 updated terminology related to Product Safety.
K	9/3/2021	Revise QC-17 for clarification about certifying to the latest revision.
L	6/21/2022	Update to Collins flow down clause for addition of requirements per ASQR-01 and clarification of others. QC01, QC02 updated for change notification.

Quality Clauses are called out on all Purchase Orders for products and services provided to Spun Products. Any requirements called out on Purchase Order Form qp-8.4-1, or Quality Clauses referenced therein, are an integral part of the order. Failure by the supplier to conform to all requirements listed on the PO, shall be cause for rejection and return of articles at the Supplier's risk and expense. Certification submitted by the Supplier must be in duplicate, bearing the signature of an authorized agent and be legible and reproducible. On orders where multiple line items exist, certification for each line is required and must be traceable.

Quality Clause	Title	Requirement
QC01	Quality Management System	The supplier must establish and maintain a Quality Management System acceptable to Spun Products for the goods and/or services purchase on this Purchase Order. As a minimum, the supplier's quality system must meet the requirements of ISO 9001 or better, and QMS must provide for objective evidence that all production and inspection/verification operations have been completed as planned, or as otherwise documented and authorized. Changes to your quality system certifications require 48 hours notice to Spun Products, and end-users (UTC) as applicable.
QC02	AS9100 - Quality Management System	As a minimum, the supplier must establish and maintain a quality control system acceptable to AS9100D or better, for the goods and/or services purchased under this Purchase Order. Supplier and applicable sub-tier suppliers must have valid AS9100D accreditation on file for the duration of your work on this purchase order. Changes to your quality system certifications require 48 hours notice to Spun Products, and end-users (UTC) as applicable.

QC03	NADCAP Approval	Special Processing NADCAP Approval is required for the supplier named on this Purchase Order. The special process in question will be listed on the actual Purchase Order.
QC04a	Supplier Furnished Raw Material	Supplier must submit Chemical and Physical test reports in accordance with the latest material specifications. Distributors must provide a certification verifying the material traceability and Mill test reports when supplied. Supplier must maintain an effective system for material traceability by heat, lot, or batch number, back to it's ultimate mill source, including any intermediate sub-tier suppliers.
QC04b	Spun Products Furnished Raw Material	No substitution of Spun furnished materials is permitted, unless written authorization is obtained from Spun Quality Management Personnel. In situations where authorized substitution of material occurs, clause QA04a applies in addition to purchase order requirements.
QC05	Sub-Tier Supplier Flow-Down	The Supplier is required to flow down the requirements of this Purchase Order, including Terms & Conditions, applicable Quality Clauses and Customer requirements to the Supplier's sub-contractors. Flow-down of key characteristics is required when specified on Spun's Purchase Order. Also, Sub-Tier Suppliers must be obtained from Spun's Approved Processor's List or Customer Approved Sources when stated.
QC06	Record Retention	As a minimum, the supplier is required to retain and maintain records pertaining to this Purchase Order for (10) TEN years from the date of purchase. In some cases, the supplier will be required to retain these records for longer periods of time based on Customer Requirements. In those cases, the record retention requirement will be listed on the Purchase Order.
QC07	Monitoring and Measuring Devices, Calibration and Calibration Suppliers	The supplier's monitoring and measuring devices must be calibrated in accordance with ANS/INCSSL Z540.3, ISO10012 and, as applicable, ISO 17025. When ASTM, Military Standards and or other Aerospace Industry recognized standard test methods are used in physical, chemical, analytical, optical and/or environmental measurement processes, the tolerance ratios established in those test standards shall apply. For suppliers of calibration services or supplies shall perform calibration of M&TE in accordance with ANS/INCSSL Z540-3, ISO10012 and ISO17025, as applicable. Calibration certificates must clearly state that the service, if applicable, was performed per ISO 10012, ANS/INCSSL Z540-3 and ISO/IEC 17025 (when applicable) using equipment traceable to N.I.S.T., and must list the actual temperature and humidity conditions under which calibration was performed. All accuracy requirements must meet the manufacturer's recommended standards.
QC08	Spun Furnished Property	The supplier is to return all furnished property to Spun Products at the completion of this Purchase Order. Furnished property may include, but is not limited to, the following: drawings, mylars, process specifications, tooling, fixtures and excess raw material.
QC09	Part Identification	The supplier is to identify parts in accordance with the requirements listed on Spun's Purchase Order.

QC10	Non-conforming Product or Process	The supplier is to notify Spun Products of a Non-conformance prior to shipping parts. Also, any deviation to the requirements set forth in this Purchase Order shall be documented and submitted to Spun prior to shipment from Supplier's facility. In the event that the product and/or material is received for processing in a non-conforming condition supplier must notify Spun's QMR prior to performing work.
QC11	Special Processing Approval	The supplier is to perform a special process (Heat Treat, Stress Relieve, NDT Testing) on this Purchase Order. Spun will have identified the special process specification and end-user on the Purchase Order. The supplier should maintain it's special process approval with the end-user listed. If the supplier is not currently approved for the process in question, it is the supplier's responsibility to notify Spun's QMR immediately.
QC12	Dimensional Inspection Report	The supplier is to document an actual dimensional inspection report and submit it to Spun Products at the completion of this Purchase Order.
QC13	First Article Inspection	The supplier is required to submit an AS9102 compliant First Article Inspection Report with this Purchase Order. Supplier is to identify all process specifications and supply all dimensional data and first article report to Spun 's Quality Department, as well as a 'ballooned' drawing and applicable part marking samples.
QC14	Foreign Object Debris (FOD)	Supplier shall ensure work is accomplished in a manner that delivers material clean and free from any foreign object debris, such as machined chips, burrs, grinding dust, foreign materials, corrosion and oil, to prevent FOD entrapment or damage to the parts. Supplier must also maintain a Foreign Object Debris/Damage Prevention program and/or procedure compliant to the requirements set forth in AS9146. Spun Products reserves the right to perform inspections and/or verification of FOD prevention procedures at the Supplier's facility.
QC15	Preservation, Packaging and Protection	Supplier is to package parts in accordance with best commercial practice to protect product and/or material from damage and deterioration. No metal to metal contact is ever allowed. In some cases, the Purchase Order will specify the manner in which the parts are to be packaged. To prevent corrosion, supplier will store materials in a manner to prevent corrosion or damage.
QC16	Part Number Serialization	All parts should have unique serial numbers assigned. Supplier is to maintain traceability through product realization.

QC17	Certificate of Conformance	<p>A Certificate of Conformance is required for this Purchase Order. The supplier is responsible for processing and certifying to the contractual/P.O. requirements, latest specification revisions and listed Customer requirements. Where a specification's revision letter is listed, the latest revision of the spec applies, with the exception of cases where specific written instruction is given to process to a previous revision. The certificate must include: name/address of supplier, part number, P.O. number, process specifications and revision levels, and must be signed/dated by the certifying QMR.</p> <p>Product Safety Expectations: Spun Products' suppliers must provide products, components, materials and services that conform to Purchase Order requirements and Blueprint Specifications. Deviations are not permitted without express written consent, and such deviations must be certified and detailed on the furnished CofC. Any misrepresentation of the product or service provided, is deemed counterfeit product and is eligible for penalties and damages at Spun's discretion.</p>
QC18	UTC Member Companies (UTAS, Collins Aerospace) - Approved Processes	<p>The supplier is to maintain a special process approval from Collins Aerospace - UTC Member Company, on this Purchase Order. It is the responsibility of the Supplier to notify Spun Products, prior to start of work, if they do not have a current approval with Raytheon/ UTC, and/or member companies, for the special process(es) listed on the Purchase Order. Compliance to the latest revision of applicable ASQR specifications is required: ASQR-01, ASQR-20.1 (sampling), ASQR-07.5 (NC/CNC), ASQR-09.1 (Flight Safety), ASQR-09.2 (PPAP). Specifications can be found at www.utc.com/suppliers.</p>
		<p>The articles in this Purchase Order are for applicable Raytheon / UTC Members 'end-use' and are controlled per applicable Purchase Order requirements. Adherence to ASQR01, HSM17, HSM19 and HSM236, are required per end-user requirements, and must be flowed to sub-tier suppliers, at all levels of the supply chain, as applicable. Applicability of ASQR-01 is determined by ASQR-01 Table A1. Customer (Spun) requires notification within (24) hours of potential/suspect non-conforming material being shipped to us or another supplier/end user, per ASQR-01.</p> <p>Eye Exams Required: As required per ASQR01, Section 6.2.2, procedures shall be implemented to ensure that eye examinations, as applicable, are administered by a medically qualified person, to all individuals performing visual inspection, other product acceptance activities and/or M&TE Calibration, requiring visual acuity. Intervals shall not exceed one year, individuals shall be tested in at least one eye (corrected or uncorrected), and records shall be maintained. Minimum vision requirements are defined per table 6 in ASQR01.</p>

<p>QC18a</p>	<p>UTC Member Companies (UTAS, Collins Aerospace) Adherence to: ASQR-01, HSM17, HSM19, HSM236, FOD Control Procedure per AS9146, Counterfeit Prevention Procedure per AS6174</p>	<p>FOD Control per the practices detailed in AS9146 - Foreign Object Damage (FOD) Prevention Program - Requirements for Aviation, Space, and Defense Organizations, is required. While the entire specification applies, the following key practices are noted to highlight their critical nature. 1. At a minimum, the Supplier must have a process to establish requirements for: a. Product design considerations for the prevention, inspection/detection, and removal of FOs. b. Selection, application, and control of protective devices/measures for products, processes, and personnel. c. Plan and sequence operations to reduce FO/Fod/FOD risk to product. d. Identification of product/characteristics (e.g., openings, compartments, cavities) requiring protection from FO/FOD. e. Capabilities for cleaning and FO/FOD inspection/detection. f. Inspection/detection methods at appropriate steps or intervals to prevent contamination, damage, and deterioration. 2. For each area designation, the supplier shall establish, implement, and maintain appropriate level of controls that include consideration of the following elements: a. Operations.b. Training and personnel access. c. Product protection. d. Housekeeping and clean-as-you-go. e. Consumables, hardware, personal items accountability, and control. f. Tool accountability and control. 3. The supplier must implement and maintain a training program in accordance with section 4.4.1-4.4.2 of the specification. 4. The supplier must implement a process that ensures product protection. The process shall establish requirements for: a. Protection against contamination by application and control of protective devices (e.g., bags, caps, covers, plugs). b. Storage, handling, and transportation of product (e.g., cleanliness of carts, containers, pallets). c. Protection against physical and functional damage from inadvertent contact with other objects that pose FO/Fod/FOD risk to product. d. Protection of product during infrastructure maintenance activities that pose FO/Fod/FOD risk to product.</p>
<p>QC19</p>	<p>The Boeing Company - Approved Processes</p>	<p>The Counterfeit Prevention Practices detailed in the latest revision of AS6174 are required to protect product integrity and prevent counterfeit product from entering the supply chain. While the entire specification applies, the following practices are highlighted and mutually agreed upon with acceptance of this order: 1. Product integrity and traceability must be maintained, using: a. original manufacturer warranty; b. proper handling, storage and shipping procedures; c. failure analysis and corrective action support; d. certificates of conformance; e. acquisition traceability. 2. Supplier should have established documented processes and the financial means to support any contractual guarantees expected. Purchase agreements include product certifications and may result in financial penalties if inaccuracies are found. 3.Audits demonstrating that the supplier's QMS incorporates adequate documented processes to assure the purchase, acceptance, use, and delivery of conforming materiel can be performed, at Spun's discretion, or records of third-party or regulatory audits may be verified. Audit requirements may range from completion of a survey assessment of the source's processes and controls (procurement, quality, handling, test, etc.), to a full facility audit of these processes. 4. Whenever possible, risk mitigation should occur according to FIGURE B1 - PROCUREMENT RISK MITIGATION.</p> <p>The supplier is to maintain a special process approval from The Boeing Company on this Purchase Order. It is the responsibility of the Supplier to notify Spun Products, prior to start of work, if they do not have a current approval with Boeing for the special process(es) listed on the Purchase Order.</p>

QC20	Key Characteristics Procedure	This Purchase Order includes a drawing that identifies 'Key Characteristics'. The supplier must have an established and maintained Control Plan and/or Procedure with regards to Key Characteristics Data in place prior to the acceptance of this Purchase Order.
QC21	Prohibition of Foreign Materials - Domestic Material Required	The supplier and/or raw material vendor is prohibited from using or supplying foreign materials throughout the manufacturing process. As applicable per PO text indicating 'DOMESTIC REQUIRED' or inclusive of this quality clause- Any material supplier/distributor furnished material on this purchase order, shall ensure material provided is manufactured and melted from a domestic source, unless otherwise specified on the purchase order. Distributors/Suppliers shall provide shipping documentation that provides verification that the material supplied compliant (i.e. melt source, melt country).
QC22	Right Of Entry	Spun Products, our Customers and/or any regulatory or government entities, reserve the right to access the Supplier's facility, the facilities of the Vendor's sub-tier suppliers and/or any member of the Vendor's supply chain that acts as a sub-tier supplier on Spun's orders, during the production of this Purchase Order. Reasons for access may include, but are not limited, to the following: inspection of the item on order, status of items listed on purchase order and review of quality records pertaining to this purchase order.
QC23	Corrective Actions	Supplier shall establish and maintain a documented procedure for the handling of Corrective Actions and Non-conformances. Upon notice that material/services furnished were found nonconforming at Spun, and CAR is required; you must promptly investigate, and provide a written response listing the root cause, the corrective action taken (or planned) to preclude recurrence, and the point of effectivity.
QC24	Flow-Down of Raw Material Requirements - DFARS Required	As applicable per PO text indicating 'DFARS Required'- Any and all raw material shall be provided from a domestic or qualified country melt source (DFARS 252.225-7008), unless otherwise specified on the purchase order. Distributors/Suppliers shall provide shipping documentation that provides verification that the material supplied is DFARS 252.225-7008, or 252.225-7009 compliant (i.e. melt source, melt country), unless otherwise specified on the purchase order. from a domestic or qualified country melt source (DFARS 252.225-7008), unless otherwise specified on the purchase order.
	1. ITAR Registration Requirements - Seller shall comply with International Traffic in Arms Regulation 122.1 Registration requirements	Export Licensing Information - Off-Shore Procurement A. This contract, including any attachments/exhibits hereto, may contain information which is subject to the ITAR or Export Administration Regulations (EAR) which may not be released to foreign concerns/foreign persons either inside or outside the United States without obtaining the proper export authority. Seller shall obtain an export license pursuant to the requirements herein for any items that Seller either manufactures or subcontracts outside the U.S. or before allowing access to any technical data by a foreign person in the United States. If Seller is a 'foreign person' (defined ITAR 22 CFR Sub-chapter M) the Seller shall, upon request of Buyer's Procurement and without additional cost, provide such information as maybe necessary to support Buyer's application for export license(s) covering any items ordered from Seller here under.

QC25	International Traffic in Arms Regulations (ITAR) Compliance	<p>B. This contract may contain defense related technical data. Buyer has obtained, or will obtain, the approval of the US Gov't to furnish to Seller the data and other items hereunder requiring such approval, which are necessary for Seller to perform this contract. US Gov't approval is based on the following ITAR Requirements with which the Seller agrees to comply:</p> <ol style="list-style-type: none"> 1. Seller shall use the technical data furnished by Spun Products only in the manufacture of defense articles in accordance with this contract. 2. Seller shall not disclose technical data furnished by Spun Products to any person except authorized US Citizens, protected persons, permanent resident alien (immigrant alien). If Seller is a 'foreign person', it may also disclose or provide technical data to its employees who are citizens of the same country and qualified sub-contractors in the same country, which require data in performance of the subcontracts. 3. Seller shall not disclose or provide technical data to any foreign person either in the US or abroad unless obtaining prior authorization directly from the US Department of State Office of Defense Trade Controls (ODTC). ITAR defines 'foreign person' as any person who is not a US citizen, permanent resident alien or protected individual (8 USC 1324B-a-3). Foreign person also means foreign corporation, foreign government and any agency or subdivision of foreign governments. 4. Seller shall not acquire any rights in the data furnished by the Spun Products except to use it in the performance of this Contract. Seller also shall not convey to its qualified subcontractors any greater rights in the data than Seller has. Seller's qualified sub-contractors shall only have the right to use the data as required in performance of their subcontracts. 5. Seller shall deliver the defense articles manufactured in accordance with this contract only to Spun Products or to the U.S. Government 6. Upon completion or termination of this contract, Seller shall destroy or return to Spun Products all proprietary information, technical data furnished to the Seller by Spun pursuant to this contract. At Spun's election, Spun Products may direct Seller to return or destroy the data and may require Seller to certify in writing that Seller has complied. 7. Seller shall impose these requirements (1) through (7) on all of its sub-contractors to which the Seller intends to furnish technical data provided by Spun Products for use by the sub-contractors in performance of subcontracts
QC25a	Proprietary Information	<p>Included in QC25 (above) as B-8. Subcontractors upon receipt of Proprietary Information shall at no time allow Spun's documents outside of their facility or released to another entity without written approval from Spun's QMR. Subcontractors shall comply with Customer Requirements at all times and shall have documented procedures and training records. Upon completion or termination of this contract, Seller shall return to Spun all proprietary information, technical data (or destroy the aforementioned information at Spun QMR Request) furnished to Seller by Spun pursuant to this contract. At Spun's election, Spun Products may direct Seller to return or destroy the data and may require Seller to certify in writing that they have complied.</p>
		<p>Suppliers are expected to: *Provide safe working conditions for all employees, customers and contractors.</p>

*Adhere to all applicable National, Regional and State and Local laws and regulations governing Environment, Health and Safety.

*Operate in a manner that minimizes the impact to the environment.

*Limit the use of natural resources and promote sustainable natural resource practices.

*Products/Services must be free from product safety hazards that would result in personal injury or death, adverse environmental impacts, and/or property damage. They must further certify that when these purchased items are incorporated into Spun's products, they are safe for our customers, employees, the general public and the environment.

*Extend and communicate these EH&S requirements to their employees and suppliers.

Risk management is imposed on this order. The Supplier is instructed to follow mitigation work instructions, which may be embedded in the text of the order or submitted as an attachment, to reduce the likelihood of failures within the criteria's of delivery, producibility and product failure. The risk management requirements and flow-downs, as set forth in AS9100, apply.

Procurement Flow-Down Risk Level Matrix QP-8.1.1-2B Rev NC	
RISK LEVELS	
RISK LEVEL-01	RISK LEVEL-02
Definition	Mild additional risks identified pertaining to inherent difficulty or producibility risk.
Mitigation Actions	Mitigation actions may include a quality advisory note, notifying suppliers of identified risks.
Flow-Down to External Providers	Quality Advisory/Note possible.
	No additional flow-down to External Providers, in excess of customer and regulatory requirements.
	No added mitigation actions required, unless noted per contract/customer purchase order.
	Mitigation actions may include a quality advisory note, additional inspection requirements.
	Moderate or multiple additional risk(s) identified pertaining to inherent difficulty/productivity or previous non-conformance history or critical items/key characteristics.
	Mitigation actions may include: quality advisories, quality notes, additional inspection requirements.
	Quality advisory/note and additional inspection requirements possible.
	High additional risk pertaining to special customer/regulatory requirements, previous critical non-conformances, repeat non-conformance history or critical items/key characteristics.
	Mitigation actions MUST include: quality advisories/note, and added inspection requirements/over-inspection requirements.
	Quality advisory/note and additional inspection requirements required.

This is a rated order certified for National Defense use under DPAS (Defense Priorities and Allocations Systems). Supplier is required to follow all of the provisions of the DPAS regulation 15CFR700.

QC26
Environmental, Health and Safety Expectation

QC-27a
Risk Management: Risk Mitigation Flow Down

QC-27b
Risk Management: Procurement Flow Down Risk Level (Excerpt from Risk Level Matrix QP-8.1.1-2B)

QC-28
Rated Order

		<p>Spun Products maintains a counterfeit parts prevention and control plan pursuant to the requirements of HSM 19 and AS6174. For the purpose of this clause counterfeit parts/work is defined as a suspect part/work that is a copy or substitute without legal right or authority to do so or one whose material, performance, or characteristics are knowingly misrepresented by a supplier in the supply chain.</p> <p>*Subcontractors performing work under a Spun Products purchase order agrees and shall ensure that counterfeit work and/or parts are not delivered to Spun Products.</p> <p>*Subcontractors shall only purchase products to be delivered or incorporated as work to Spun Products directly from Original Component Manufacturer (OCM) Original Equipment Manufacturer (OEM) or through an OCM/OEM authorized distributor chain. Work/parts shall not be acquired from independent distributors or brokers unless written approval is received in advance from Spun Products.</p> <p>*Subcontractor shall immediately notify Spun Products with the pertinent facts if subcontractor becomes aware or suspects that it has furnished counterfeit work/parts. When requested by Spun Products, subcontractors shall provide OCM/OEM documentation that authenticates traceability of the affected items to the applicable OCM/OEM.</p>
QC-29	Counterfeit Detection (HSM 19, AS6174)	
QC-30	Integral Aerospace / GE Aviation Flow-Down	<p>The supplier is to maintain a special process approval from GE Aviation on this Purchase Order. It is the responsibility of the Supplier to notify Spun Products, prior to start of work, if they do not have a current approval with GE Aviation for the special process(es) listed on the Purchase Order. Sub-tier suppliers are required to comply with GE Work Standards Document : https://www.geaviation.com/sites/default/files/C64_20170802.pdf</p>
QC-31	Software and Data Control	<p>Spun Products suppliers and sub-tiers using digital data and/or software for the design, manufacture, acceptance or calibration of parts and tooling shall have documented procedures to ensure configuration identification and control of digital data/ software.</p>
QC-32	Pratt & Whitney (WSK PZL Rzeszow) Flow-Down	<p>The supplier is to maintain a special process approval from Pratt & Whitney on this Purchase Order. It is the responsibility of the Supplier to notify Spun Products, prior to start of work, if they do not have a current approval with PW for the special process(es) listed on the Purchase Order. Adherence to ASQR-01 and 01/ESCO are required. As required per ASQR01, Section 6.2.2, procedures shall be implemented to ensure that eye examinations, as applicable, are administered by a medically qualified person, to all individuals performing visual inspection, other product acceptance activities and/or M&TE Calibration, requiring visual acuity. Intervals shall not exceed one year, individuals shall be tested in at least one eye (corrected or uncorrected), and records shall be maintained. Minimum vision requirements are defined per table 6 in ASQR01.</p>
QC-33	Supplier Contribution, Conduct and Performance Monitoring	<p>The supplier is to ensure that persons involved in work on these products, are aware of: 1. their contribution to product or service conformity; 2. their contribution to product safety; 3. the importance of ethical behavior. Supplier performance is monitored and periodically reviewed for conformance to Spun's Quality and On-Time Delivery standards. Spun Products requests that Suppliers maintain an Product Quality percentage of 95% or higher, and an OTD percentage of at least 90%.</p>