



Level II Procedure

Document #

QAP-33

Revision:

Q

TITLE: QUALITY CLAUSES

Rev. Date:

12/5/2019

What's New:

*(See the last 2 pages
for prior revision
history.)*

REV Q

- **All Sections:** Complete format alignment and grammatical corrections throughout the document.
- **Proprietary Parts Section:** Added requirement for QAF-142 form.
- **Table 1:** Replaced QA 111 with ASQR 01 AA. Reorganized to combine cage codes to same line.
- **Clause G:** A FAIR is not required if no changes have occurred per AS9102, 4.6f. Request buyer to update PO to remove G and add G.1.
- **Clause G.1:** If any changes occur per AS102, 4.6f, then request buyer to update PO to remove G.1 and require FAI per design holder requirements (if specified).
- **Clause H:** changed wording to note 6 to "When a shipment is rejected due to a non-conformance, shipment is subject to return if non-conformance has no supplier response within 30 days."
- **Clause N.2:** Added for PC 700.
- **Clause P:**
 - Removed bar code training
 - Removed BSP
- **Clause R:** Updated Special Notice.



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NOTE: This procedure requires approval of changes by Honeywell. Send proposed changes to the Boeing Distribution Services Inc Document Control Board at Honeywell.

Introduction: Quality Clauses are flowed-down by the purchase order, Memorandum Of Understanding (MOU), or other contract. Product and/or orders not meeting the requirements of the quality assurance clauses QAP33.0 are subject to return and/or corrective action.

ISO Reference: AS9100/AS9120 Clause 8.4.3.

- Definitions:**
1. **Honeywell Specification Control Part:** A Honeywell part number assigned to a commercial or off-the-shelf item. Includes 10 and 11-digit series parts (e.g., 145-525-9001, 525-8515-9001, etc.), and items designated "Specification Controlled" or "Vendor Item Control Drawing" on the blueprint.
 2. **Commercial Standard Part:** A part **not** designed for a specific application which is **manufactured to a catalog description** and identified with the manufacturer's part number.
 3. **Standard Part:** Part numbers designated as AN, AS, M, MS, NAS, SAE, etc. conforming to an established industry or U.S. specification. A standard part is defined as a part manufactured in conformance with a specification established, published and maintained by a consensus standards organization, a government agency, or holder of a design approval meeting specific criteria. The specification includes design, manufacturing, test and acceptance criteria and identification requirements.
 4. **Fastener:** A screw, nut, bolt, or stud having internal or external threads, or a load indicating washer as per the Fastener Quality Act (FQA).
 5. **Vendor Proprietary Part:** The manufacturer of the part is the design/cage-code holder. Specifications are proprietary to the manufacturer.
 6. **Customer Proprietary Part:** The customer is the design/cage-code holder.
 7. **Traceability:** Clear paper trail of certifications, test reports, material specifications, etc. including any unique numbering system applied on each page of a single certification package.
 8. **EEA** – European Economic Area (European Community member states plus Iceland, Norway and Liechtenstein).
 9. **TDS** – Technical Data Sheet.
 10. **Chemical material** - substance or mixture (refer to REACH (EC) 1907/2006, Article 3(3) or CFR 1910.1200(c) for distinction from an article)
 11. **Substance** – consists of one ingredient.
 12. **Mixture** – consists of more than one ingredient.
 13. **Raw Material** – an article that has to be cut to size, formed, or otherwise treated prior to application.
 14. **Sub Clause Categories:** (example F.1 or F.2). Only those clauses specifically called out on the Purchase Order are invoked. Clause "F" on a PO does not automatically invoke F.1 / F.2 etc.



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Customer Customer Proprietary Part Numbers require compliance to that Design Holder's Quality System Standard Requirements.

Proprietary Parts All drawing, specification and documentation requirements of the Design Holder's Quality System must be complied with.

Requirements: Table 1 lists examples of Customer Proprietary Cage Codes which may have special requirements. The applicable Design Holder's Quality System Requirements must be evaluated for applicable test report, approved process sources, first article inspection reports, to include frequency and format, or other specification requirements during contract review and prior to release for production.

Additional Customer Proprietary CAGE Codes may exist beyond those listed in Table 1. Their requirements must be adhered to as if their cage code were listed.

Boeing Distribution Services Inc (Boeing Distribution Inc.) should be contacted as necessary to ensure compliance to that Customer's Quality System Standard Requirements.

Any drawing change requests require a completed QAF-142 form found on website.

<https://www.boeingdistribution.com/aero/supplier-resources/supplier-communications/>

Submit to Boeing Distribution buyer.

TABLE I

CAGE	Design Holder	Standard	CAGE	Design Holder	Standard
25472	BFGOODRICH CO	ASQR 01 AA	76301 81205	BOEING	D590
03481 92092	GOODRICH CORP	ASQR 01 AA	73030 99167	HAMILTON SUNDSTRAND	ASQR - 01
51563	ROHR INCORPORATED	ASQR 01 AA	00198	PRATT AND WHITNEY CANADA	ASQR - 01
71379	CESSNA AIRCRAFT COMPANY	CQRS	77445 61858	UNITED TECHNOLOGIES CORP	ASQR - 01
99207 07482 24446	GENERAL ELECTRIC COMPANY	S - 1000 S - 1002	98897	Lockheed	Appendix QX Supplier Quality Requirements
97499	Bell Helicopters	SQRM-001	1B6R3	Middle River Aircraft Systems (MRAS)	S-1005 S-1007



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Clause A - Certification of Conformance (C. of C.)

- The supplier shall provide a manufacturer's Certification of Conformance with each shipment.
- The manufacturer's certification must have a Quality Representative's or an officer of the certifying companies' signature and date. The signature may be electronic, manual, or physically signed and dated by an authorized company representative as stated above.
- Each manufacturer's lot in each shipment must be physically segregated and identified to include quantity per lot number, on each C of C to maintain lot traceability.
 - If the shipment contains multiple special processed lots within each manufactured lot, each processed lot must be segregated and identified to maintain complete traceability (not applicable to assemblies). For instance, a shipment containing two heat-treated lots, each heat-treated lot shall be segregated and identified to maintain traceability in the shipment.

Number of individual lots in any one order must be limited to four (4).

Documentation showing clear traceability for the part number ordered, up to and including shipment to BOEING DISTRIBUTION SERVICES INC must be included for each lot in each shipment unless otherwise noted on the applicable purchase order.

There must be a clear link(s) (ex: Heat #, Lot number), that ties the entire certification package together. This includes process certifications performed by sub-tier suppliers.

A

There shall be NO breaks in the Chain of Custody ownership and every Sale throughout the supply chain process shall include the appropriate Certification of Conformity.

All Certificates of Conformance shall include the following:

- Purchase Order Number
- Part Number (as ordered on BOEING DISTRIBUTION purchase order). Referenced part numbers are not acceptable.
- Revision Level as noted on the Boeing Distribution purchase order.

If no revision is noted on Purchase order, provide and certify to the latest blue print revision at time of Purchase Order placement.

 - (see Clause "R" for Honeywell specific part number requirements)
- **Quantity (per each mfg lot in shipment. (See bullet 3 in first CofC section above))**
- Manufacturer's name and part number (if applicable).
- Lot number: lot number may be defined by any format that provides full trace to all elements of the manufactured lot – including special processes. Examples (but not limited to) could be date codes, work order numbers & heat numbers, as long as the format fulfills the requirement of full traceability for all elements of the manufactured lot.
- Serial number (if applicable) Serial bar codes must have whole serial number as listed in cert.
- A statement that the parts/materials conform to all applicable drawing and specification requirements
- ** If the part is considered ITAR or EAR based upon its "original design intent", then ITAR category or ECCN is required for "Verification of Export Compliance".
 - If the part is considered dual use, then use the Commercial classification
- Shelf life requirements including cure date (if applicable). This requirement may be met on DCC of Authorized Distributors.
- **Distributors must also include a signed Certification of Conformance (DCC).**
- **Distributor shall certify to part number ordered on Purchase Order**
- **Distributors shall maintain clear traceability to the original manufacturer for each lot in a shipment.**

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A (cont)	<ul style="list-style-type: none">• Statement of Origin (i.e. Made in the USA)• Electrical Authorized Distributors must include manufacturer C of C if part is a non-assembled part number.• Electrical Authorized Distributors must include manufacturer component authority letter for assembled part numbers. <p><u>CRITICAL NOTE: If the shipment contains multiple manufactured lots, each lot shall be segregated and identified to maintain traceability in the shipment. Failure will result in a rejection.</u></p> <p>All required documentation shall be completely legible, and reproducible. Boeing Distribution Services Inc will review documentation for compliance to requirements, legibility, and reproducibility by electronic scanning and/or copying.</p> <ul style="list-style-type: none">• At Boeing Distribution Services Inc' discretion, we reserve the right to invoke source inspection.
A.1	<p><u>DFAR 252.225-7009 specialty metals applies</u></p> <p>Compliance options include:</p> <ol style="list-style-type: none">1. A statement of "conformity per DFAR 252.225-7009" on the Certificate of Compliance or associated paperwork.2. Certification to the Country of Melt3. Copy of original mill certification to validate Country of Melt
A.2	<p><u>ASQR-01 Supplier Quality System Requirements (UTC End Use)</u></p> <p>The supplier must ensure that all specifications within ASQR-01 are met. These requirements include but are not limited to:</p> <ul style="list-style-type: none">ASQR-07.5 Control of SoftwareAQSR-15.1 Handling, Storage, Packaging, Preservation and DeliveryASQR-20.1 Supplier Sampling RequirementUTCQR-09.1 Process Certification Requirements <p>ASQR-01 Compliant must appear on the certificate of conformance or associated paperwork.</p> <p>Any waivers-exceptions to ASQR-01, please complete SRI-QN form.</p> <p>Submit to Boeing Distribution buyer.</p> <p>https://www.boeingdistribution.com/aero/supplier-resources/supplier-communications/</p>



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1. Specific Purchase Order text takes precedence over the QAP 33.0 clauses. Seller is required to notify Boeing Procurement Agent if procured item is manufactured at a Seller facility not reflected on the procurement document.
2. Boeing Distribution Services Inc, its customers, and regulatory agencies shall have the right of entry, upon reasonable scheduling, to any level of the supply chain necessary to determine and verify the quality of contracted work, records and material. The supplier shall provide facilities, equipment and personnel as necessary for the task.
3. All documents must be one-sided, 1 certification per page, legible, reproducible, and no larger than 8 ½" x 11" or A4 in size.
4. For Honeywell proprietary parts, the Honeywell SPOC manual and drawing will take precedence over this document.
5. When Vendor Substantiation Engineering Approval (VSE) is denoted, it is a supplier obligation to obtain General Electric (GE) approval, prior to quoting or producing hardware. Vendor is also responsible for obtaining GE approval for all changes prior to quoting or producing hardware.
6. Certifications and test reports supplied in fulfillment of orders must be in English
7. Records and certification packages related to items sold to Boeing Distribution Services Inc, must be available if requested, within 48 hours of request.
8. Thorough contract review required. Any/All differences between Boeing Distribution Services Inc quote or Purchase Order and supplier's ability to provide product as ordered, must be resolved in writing, prior to Purchase Order acceptance.
9. Where product has been determined to have an ASL / QPL, the manufacturer must be approved on the current applicable document for the part number ordered. Manufacturer's contract review is responsible for assuring this approval prior to sale. If product received is not manufactured or supplied from an approved source, the product will be rejected.
10. Boeing Distribution Purchase Orders indicate the current revision of QAP 33 Quality Requirements flow down. Vendor shall assure that their Contract Review is performed to the revision indicated on the P.O. Acceptance of the Contract/Purchase Order is certification that this requirement has been met. <https://www.boeingdistribution.com/aero/supplier-resources/supplier-communications/> Quality Alerts and other pertinent information to these reviews may also be found here.
11. Changes or corrections to records, regardless of the media, shall be made as follows: draw a single line through the old data, enter the correct data, date, and apply stamp or initials or signature of individual making the correction. No erasures, covering, or "white-out" allowed.
12. Subcontract policy: Boeing Distribution Services Inc suppliers shall ensure flow down to, and compliance with, all applicable Purchase Order requirements to their sub-tier suppliers, including approved Special Process providers when required by design owner.
13. Prohibited practices:
 - a. Unauthorized repair of another owner's design hardware
 - b. Unauthorized processing when processes are subject to specification control by buyer.

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14. Supplier shall ensure that the current configuration of all drawings, specifications and instructions required by the Contract/Purchase Order, are used for manufacturing, inspection and testing.

15. Class I Ozone Depleting Substances (ODS) according to the Clean Air Act (CAA) shall not be used in the design, test, manufacture, integration and assembly, handling, transportation, operations, maintenance or disposal of the hardware/components delivered to this order.

16. Mercury Free Products: Products delivered shall contain no metallic mercury and must be free from contamination by mercury. The Supplier shall not use mercury, mercury components or mercury bearing instruments or equipment that cause contamination during the manufacture, service, assembly, or test of materials. There shall be a mercury free statement on Certification of Conformance.

17. The supplier shall use industry standard, commercially reasonable efforts to prevent and/or remove **Foreign Objects** that might be considered a potential source of **Foreign Object Damage** (FOD) from all parts prior to shipment. Potential FOD includes but is not limited to burrs, chips, dirt, corrosion and contamination resulting from manufacturing, assembly, processing, cleaning storage and subsequent packaging materials (examples: "peanuts" and staples) which may cause contamination, part obstructions or leave non-preservation residue.

18. For ESDS (Electrostatic Discharge Sensitive) items, Supplier shall establish and maintain a written ESD control program for fabrication, handling, and packaging. The program must comply with the requirements of the most current version of Mil-Std-1686 or ANSI/ESD S20.20.

19. All aircraft items and materials declared as scrap/unsalvageable*:

- a. Shall be physically identified.
- b. Shall be handled and stored in secured/ quarantine areas.
- c. Shall be mutilated (when feasible) prior transfer for destruction/ recycling. The mutilation shall be done in such way that the items or materials are beyond economic salvage or repair, including their potential subassemblies.
- d. When mutilation is not feasible prior to the transfer for destruction/recycling (e.g; hazardous or small items), the transfer and destruction/recycling processes shall be secured with capability to demonstrate the destruction or the recycling.

***Scrap/Unsalvageable item:** Item determined as no longer suitable for its intended aerospace use.

20. Periodic calibration of measuring and test equipment is required and shall be performed prior to use for acceptance of hardware. Measuring and test equipment records and labels shall indicate the date of the last calibration and when the next calibration is due.

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21. Space Program

The use of tin, zinc, and cadmium is prohibited as specified in the following subparagraphs.

- a. Tin: Pure unalloyed tin is prohibited as a surface finish, including the surface finish on components. Solder-dipped tin alloy finishes shall contain at least three percent lead or at least three and a half percent silver. All other tin and tin alloy finishes shall contain at least three percent lead
- b. Zinc: Pure zinc is prohibited as a surface finish. Un-plated brass (an alloy containing copper and zinc as the main constituents) containing greater than 21 percent zinc is prohibited. Brass with greater than 21 percent zinc is acceptable if the brass is over-plated with a minimum of 50 microinches of nickel, or 100 microinches of either copper or gold. Unplated alloys other than brass that contain greater than 10 percent zinc are prohibited. Unplated alloys other than brass alloys that contain greater than 10 percent zinc are acceptable if they are over-plated with a minimum of 50 microinches of nickel, or 100 microinches of either copper or gold. Zinc or alloys containing zinc, sealed within a hermetic cavity are acceptable.
- c. Cadmium: Pure cadmium is prohibited as a surface finish. Unplated alloys containing greater than five percent cadmium are prohibited. Alloys containing greater than five percent cadmium are acceptable if they are over-plated with a minimum of 50 microinches of nickel, or 100 microinches of either copper or gold. Cadmium or alloys containing cadmium that are sealed within a hermetic cavity are acceptable.

22. European suppliers shall provide a yearly long-term supplier's declaration and/or any other equivalent proof for non-preferential origin.

23. Organizations shall (AS9100/AS9120 Clause 8.4.3.i):

- a. Implement a Quality Management System (QMS);
- b. Use designated or approved external providers including process sources;
- c. Notify Boeing Distribution of nonconforming processes, products or services and obtain approval for their disposition;
- d. Prevent the use of suspected unapproved, unapproved, and counterfeit parts;
- e. Notify Boeing Distribution of changes to processes, products, or services, including changes in external providers (affecting the product) or location of manufacture;
- f. Flow down to external provider's applicable requirements including customer requirements;
- g. Provide a certificate of conformity, test reports or authorized release certificate as requested by Boeing Distribution or by design requirement;
- h. Retain documented information, including retention periods and disposition requirements as requested by Boeing Distribution.

24. Ensure employees are aware of (Clause 8.4.3.k):

- a. Their contribution to product or service conformity;
- b. Their contribution to product safety;
- c. The importance of ethical behavior.

25. The packaging, labeling and shipping of all hazardous substances must conform to all applicable laws and regulations. In addition to the application of proper shipping labels on the outside container, each container of hazardous substances shall be marked with the appropriate precautionary label in accordance with all applicable laws, rules and regulations relating to hazardous substances. Seller shall supply Buyer with any and all required safety data sheets (SDS) when requested by buyer.

END OF A.3



Hamilton Sundstrand Process Certification

The supplier must provide the below information for each KPC identified on the Hamilton Sundstrand print per the requirements of UTCQR-09.1 and HSC16199:

1. Gage Information for the gage used to measure that KPC:
 - Gage ID and description
 - Calibration Data
 - Gage R&R to include: Gage resolution, Std Deviation, minimum tolerance gage is capable of measuring
2. Process Data:
 - Initial process capability data
 - Name of machine producing the KPC
 - List of critical process variables that control the variation
 - List of critical process variables setting that minimize variation
 - List of Critical process variables control methods that define Key Process Input and key Process Input Setting
3. Inspection Data:
 - Mfg. lot #
 - Inspection qty
 - mean average - the average of the measurements in the manufacturing lot
 - Standard deviation - the calculated standard deviation of all measurements in the manufacturing lot
4. Action Plan (when required as outlined below):
 - The Gage study does not meet all requirements
 - The SPC data has a Cpk less than 1.33
 - A Pop-Up message in HS portal will indicate that an Action Plan is required - Boeing Distribution Services Inc will advise
 - A date will appear in the Action Plan Required Date window on the Milestone Status screen indicating when the Action Plan must be submitted - Boeing Distribution Services Inc will advise
 - Workflow messages will be sent to the producer and assignee when an Action Plan is required and when an Action becomes overdue - Boeing Distribution Services Inc will advise

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END OF CLAUSE A.4



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A.5	<i>(Reserved)</i>
A.6	<u>Counterfeit Parts Compliance</u> The holder of the Boeing Distribution Services Inc Purchase Order must be the Original Component Manufacturer (OCM) of the product or the OCM's Authorized Distributor with traceability to the OCM. Boeing Distribution Services Inc will only accept hardware with an unbroken chain of custody from these authorized manufacturers or distributors. Authorized distributors shall provide certification to OCM approved distribution. Or provide evidence of certification, or approval from the appropriate OCM of the product supplied to Boeing Distribution Services Inc.
A.7	<u>Proponent Self Release on Behalf of Boeing Distribution Services Inc</u> Proponent to perform Honeywell Self Release requirements on behalf of Boeing Distribution Services Inc and per Proponent PQO-400 (W/I-400-4)
A.8	<u>HSM17 Quality Requirements (UTAS End Use)</u> HSM17, the latest Revision, applies. The supplier must ensure that all requirements within HSM17, Latest Revision, are met. Any waivers or exceptions to HSM17 will require a completed SRI-QN form. Forms to be submitted to Boeing Distribution buyer. https://www.boeingdistribution.com/aero/supplier-resources/supplier-communications/



A.9 Chemical Material Requirements

Certification of Conformance (CofC) and Certification of Analysis (COA)

The supplier shall provide a manufacturer's certification of conformance (CofC) or a certificate of analysis (COA) with each shipment. **The manufacturer's certification must have a Quality Representative/Officer of the certifying companies' signature and date or indicate that the certification is being electronically signed by the company per their system. The signature and/or statement may be electronic, manual, or physically signed as stated above.** Each manufacturer's lot in each shipment must be segregated and identified **to include quantity and lot number on each CofC or COA, to maintain traceability.**

Documentation showing traceability for the part number ordered, up to and including shipment to Boeing Distribution Services Inc must be included for each lot in each shipment unless otherwise noted on the applicable purchase order.

There must be a clear link(s) that ties the certification package together. The certification from the manufacturer or distributor constitutes ownership and liability for the product and does not require a packing slip.

All Certificates of Conformance or Certificates of Analysis shall include the following:

- Purchase Order Number
- Part Number (as ordered on Boeing Distribution Services Inc purchase order) shall be included on certification. It is not acceptable to convert to a vendor item number or other designation without also including the ordered part. When ordered from a distributor, the part number as ordered is only required on the distributor certification.
 - Part Numbers certified that are different from the Boeing Distribution Services Inc purchase order will be accepted provided these differences are only special characters that have no significance (such as RTV-157 vs RTV 157).
- Revision Level as noted on the Boeing Distribution Services Inc purchase order.
 - **If no revision is noted on Purchase order, provide and certify to the latest revision at time of Purchase Order placement, whenever the specification is revision controlled.**
- Quantity (Each manufacturer's lot in each shipment must be segregated and identified **to include quantity and lot number**)
- Manufacturer's name and part number (if applicable).
- Lot number: lot number may be defined by any format that provides full trace to all elements of the manufactured lot – including special processes. Examples (but not limited to) could be date codes, work order numbers & heat numbers, as long as the format fulfills the requirement of full traceability for all elements of the manufactured lot.
- Serial number (if applicable)
- A statement that the parts/materials conform to all applicable specification requirements
- If the part is considered ITAR or EAR based upon its "original design intent", then ITAR category or ECCN is required for "Verification of Export Compliance".
- If the part is considered dual use, then use the Commercial classification.

Shelf life requirements including expiration date (if applicable) shall be noted in the certification package or on the product itself. This requirement may be met on Distributors DCC.

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Temperature controlled items must be accompanied by information validating the materials were stored and handled in correct conditions throughout their life prior to arriving at Boeing Distribution Services Inc. The actual time remaining for use and the maximum allowable time the material is outside of the required temperature area shall be provided. The supplier must provide the minimum and maximum storage temperatures. This may be shown in a variety of ways that include statements on COC, TDS, SDS or marked on the manufacturer product labelling.

The quantities of chemicals and raw materials may not always align when a third party repackages (through kitting, cutting, separating into smaller containers etc). In this case, the documents produced by the manufacturer and suppliers should still be provided showing the traceability of the product. The receipt will not be rejected for quantities that are not equal and will only be rejected if the quantity received is more than the total quantity the 3rd party received from the manufacturer.

Distributors must also include a signed Certification of Conformance (DCC).

Distributors shall maintain clear traceability to the original manufacturer for each lot.

A statement or indication of origin must be included in documents or on product.

CRITICAL NOTE: If the shipment contains multiple manufactured lots, each lot shall be segregated and identified to maintain traceability in the shipment. Failure will result in a rejection.

All required documentation shall be completely legible, and reproducible. Boeing Distribution Services Inc will review documentation for compliance to requirements, legibility, and reproducibility by electronic scanning and/or copying.

Boeing Distribution Services Inc reserves the right to invoke source inspection.

B

Inspection Plans and Sampling Methodology

Supplier's acceptance plan must meet the Quality System Inspection and Sampling methodology of the design holder, identify the inspection requirements, and provide for recording of the results.

Boeing Distribution Services Inc sampling plan is based on C=0 results and all manufactured lots found to have defective hardware will be returned to the supplier.

<p>C</p>	<p><u>Protection of Materials</u></p> <p>The supplier must ensure that all items are packaged adequately to ensure that hardware is delivered to Boeing Distribution Services Inc undamaged. The supplier will be responsible for repackaging at their expense if required. If there is damage due to inadequate packaging, the items shall be subject to rejection. Individual boxes/cartons:</p> <ul style="list-style-type: none"> • <u>Shall not exceed 40 lbs. in weight and with dimensions no larger than 18" x 14" x 12"</u> • <u>Boxes over 25 lbs. shall be in double wall boxes</u> • <u>Straps shall not be used</u> <p><u>Chemical packages that can't be packaged in a lower weight are exempt.</u></p> <ul style="list-style-type: none"> • Product must also be protected against corrosion, rust or any elements which may cause a visual rejection or product failure • Silver plated parts or parts/assemblies containing silver components shall be protected from sulfur-laden fumes, or other sources that cause tarnish. • Packaging must protect product against leakage. <p>Electrostatic Discharge (ESD) product must be protected in ESD packaging.</p>
<p>C.1</p>	<p><u>Thread Protection</u></p> <p>When print or specification requirements do not already mandate explicit thread or packaging protection, threads must then be sleeved or individually packaged in a manner to prevent damage.</p> <p>Packaging Best Practices are listed on supplier communications: https://www.boeingdistribution.com/aero/supplier-resources/supplier-communications/</p>
<p>C.2</p>	<p><u>Electro Static Discharge (ESD) Protection</u></p> <p>Electro Static Discharge (ESD) Packaging and identification required as per specifications. All documentation must be packaged separately from the parts – not sealed in bags with the parts.</p>
<p>C.3</p>	<p><u>Temperature Controlled Products</u></p> <ul style="list-style-type: none"> • The supplier must provide the minimum and maximum storage temperatures. (This may be shown in a variety of ways that include statements on: Mfg CoC, TDS, SDS or marked on the manufacture product labeling. • Documentation shall show proof that the material was maintained within the required parameters during transit by way of temp recorder or other means. The actual time remaining for use and the maximum allowable time the material was out of the required temperature area shall be provided. • <u>Material requiring storage at -18°C / 0°F needs qualified packaging (within sealed bag), condition (including cooling agent) and identification (outside labeling)</u>



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O-Rings/Packings/Rubber Products/Age Sensitive Products

D

Non-Chemical Material requirements:

A test report in accordance with the material or product specification is required with each shipment.

Certifications must include the batch number and cure date if age controlled. (format may be standard mm/dd/year or 4Q01 format).

- Test reports must show actual values as required by the specification.
- Not more than Fifteen (15) percent of the shelf life or Twelve (12) quarters, whichever is less, may have expired prior to shipment to Boeing Distribution Services Inc.
- All lots must be segregated and identified to maintain batch and cure date traceability.
- All Distributors must also include a Certificate of Conformance (DCC)
- Distributors shall include all documents that include full traceability to the original manufacturer for each lot in a shipment.

For rubber products other than O-Rings and Packings (seals, gaskets, etc.), a Material Certification with batch number and cure date is required if a Test Report is not available

Chemical Material requirements:

- a. The age requirements for chemical products will be defined on the face of the Boeing Distribution Services Inc purchase order. If no age requirements are provided then the above requirements of clause D shall apply unless the supplier responds with an exception.
- b. A date of manufacture AND expiration date is required to appear on the shipping documentation.
- c. If a date of manufacture is not available, then a statement of the total shelf life allowance is acceptable. *Example: MFG Date 5/2016. This product has a total shelf life of 180 days from date of mfg.*

This clause applies to all age sensitive products.



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Material, Physical/Chemical Certifications

Supplier shall provide material, physical and chemical certifications with actual physical and/or chemical results with each shipment as required by the specification.

Original mill cert not required, if all specification conditions for actual results are met and certified in a test report.

The certifications must meet the following requirements:

- Be on a company letterhead.
- Contain signature and title of an authorized quality representative.
- Include specification(s) and revision *level(s)* used to produce the order.
- Certify in accordance with applicable purchase order, contract, drawing and specifications requirements, including type, grade, class, heat/lot, results of testing as applicable.

In addition to the above:

- If the shipment contains multiple processed lots within each manufactured lot, each processed lot must be segregated and identified to maintain complete traceability in each shipment. For instance, a shipment containing two heat-treated lots, each heat-treated lot shall be segregated and identified to maintain traceability in the shipment.

This does not include vendor proprietary or catalog items.

- Certifications may be on same page as Manufacturer's C of C if appropriate for the Manufacturer's procedures.

Note 1: Material (Chemical & Physical properties), and process certifications are not required with the shipment on Ball Bearing, Roller Bearing, and Pin Bearing commodities.

Exception: When a FAIR is required, the full certification package is required to allow validation and acceptance. Contact your buyer to determine if FAIR validation is to occur at manufacturer's facilities or at Boeing Distribution Services Inc.

Note 2: Certifications shall be made available within 48 hours of specific request.

Note 3: Material certifications may be substituted in lieu of a test report if the product is non-metallic. Material certifications submitted in lieu of test reports shall contain the batch number and cure date.



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E.1	<p><u>Material Certification</u></p> <p>Supplier shall provide material certification with each shipment as required by the specification. The certification must meet the following requirements:</p> <ul style="list-style-type: none">• Be on a company letterhead.• Contain Signature and title of an authorized quality representative.• Include specification(s) and revision level(s) used to produce the order. <p>Certify in accordance with applicable purchase order, contract, drawing and specifications requirements, including type, grade, class, heat/lot, results of testing as applicable.</p> <ul style="list-style-type: none">• Per QAP 33.0 Clause A, if multiple manufactured lots are supplied, they shall be segregated and identified on the Manufacturer Certificate of Conformance. If the same material specifications were used for all lots provided, then only one material certification statement or document is required. <p>If different material specifications were used for each manufactured lot provided, then the material certification statement or document must identify which manufactured lot received is associated with each material specification(s).</p> <p>Material certification may be on the same certification as the Manufacturer's Certificate of Conformance.</p> <p>If specifications do not identify a specification for the material, then material certification shall identify what specification was used.</p> <p>If QAP33.0 Clause E is also present on purchase order for the specific line / part number, then the requirements of clause E.1 take precedence and clause E is disregarded.</p>
E.2	<p><u>Third Party Tests Required by Design Holder</u></p> <p>It is the responsibility of the supplier to comply with any third-party testing requirements that are mandated by the design holder. All test reports for products ordered on face of the Purchase Order shall be retained on file at supplier's facility and made available within 24 hours of any request for copies.</p>
E.3	<p>Supplier must provide copy of original mill certification.</p>

E.4

Chemical Material

Chemical materials always need a Technical Data Sheet (TDS). In addition:

Hazardous chemical materials require a Safety Data Sheet (SDS) and a respective label is required:

- **For receipt in US warehouses:** SDS in English language according to 29 CFR 1910.1200(g) and label according to 29 CFR 1910.1200(f) are mandatory, i.e. GHS compliant
- **For receipt in EEA warehouses:** SDS and label according to CLP regulation (EC) No 1272/2008 and in the official language of the country
- **For AU warehouses:** SDS according to Code of Practice for the Preparation of Safety Data Sheets and label according to the Model Code of Practice – labelling of Workplace Hazardous Chemicals, both in English language

F

Special Processes

Certification for special processes, such as heat-treating, chemical processing, plating, etc., shall be submitted with each shipment. Certifications may be transcribed to the MFR Test Report or MFR C of C for parts processed internally, or a Processor's certification may be included.

Specification(s) and revision *level*(s) used to produce the order are required.

If product is a customer proprietary item, processes shall be performed by an approved supplier(s) when required by the OEM design activity/Cage Code holder and the processor's certification must be included.

A list of approved process suppliers for other OEM's is available from the Boeing Distribution Services Inc Buyer or Supplier Quality representative. Approved sources and specifications shall be evaluated during contract review and prior to release for production.

All process certification(s) shall be completely legible, and reproducible. * Boeing Distribution Services Inc will review documentation for compliance to requirements, legibility, and reproducibility by electronic scanning and/or copying.

The APSL requirement does not apply to standard or commercial standard items, however, the process certification/transcription shall be required.

If the shipment contains multiple special processed lots within each manufactured lot, each processed lot must be segregated and identified to maintain complete traceability in each shipment. (Example: when a manufacturing work order is split into two separate heat-treated lots, each heat-treated lot shall be segregated and identified to maintain traceability in the shipment).

<p>F.1</p>	<p><u>NADCAP CERTIFIED APPROVED SPECIAL PROCESSORS REQUIRED</u></p> <p>All special processes, such as heat treating, chemical processing, plating, etc, shall only be performed by NADCAP certified processors.</p> <p>Test report or certification to process must be provided.</p> <p>This requirement may be invoked for special processes on industry standard parts.</p>
<p>F.2</p>	<p><u>Oxygen Cleaning Process Certification</u></p> <p>Oxygen Cleaning process certification is required. Suffix of part number specifies process to be certified to.</p> <p>.OCP or .OXY – requires Boeing process 27M100. Certify P/N with “.OCP” suffix.</p> <p>.OCPS - requires MIL-STD-1359 and/or SAE ARP1176 Standard Certification. Certify P/N with “.OCPS” suffix.</p> <p>.OCPM – requires Northrop Grumman MEPS-7000-70 process. Certify P/N with “.OCPM” Suffix.</p>
<p>F.3</p>	<p><u>Hamilton High Strength Fasteners (HSM17)</u></p> <p>Fastener Manufacturers producing externally threaded fasteners with a minimum ultimate tensile strength of 150,000 pounds per square inch or greater shall be AS9100 registered and Hamilton Sundstrand approved. This includes high strength fasteners produced to Hamilton Sundstrand drawings, military, federal and industrial specifications. Approved suppliers are listed in Hamilton Sundstrand’s Report #80 under “<i>Fastener Manufacturers, High Strength</i>”.</p> <p>All special processes and non-destructive testing of Hamilton Sundstrand, military, federal and industrial specifications (externally threaded fasteners) with a minimum ultimate tensile strength of 150,000 pounds per square inch or greater shall be performed by a Hamilton Sundstrand approved supplier (HS Report 80/85).</p> <p>These requirements apply to all direct and indirect Hamilton Sundstrand suppliers.</p>
<p>F.4</p>	<p><u>Boeing D1-4426 Requirements Apply</u></p> <p>The Boeing D1-4426 web site specifies how The Boeing Company assures that special processes, production of raw material and the procurement of selected parts standards are performed in accordance with contractually established engineering specifications, drawings and quality requirements.</p>



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Chromate Verification

Chromate verification testing and documentation required on manufacturer's Certificate of Conformance or Test Report. Verification testing shall be performed on one-piece minimum, to ensure coating is Hi-Kote 1 with chromates.

Coating analysis shall be performed using scanning electron microscopy, energy dispersive X-ray spectroscopy or X-ray fluorescence techniques per drawing notes.

F.6

UTAS PART MARKING REQUIREMENTS

Part marking shall be in accordance with UTAS part marking specifications noted below as called out on the HS Drawing.

- If the supplier does not have a Hamilton Sundstrand designated supplier code, the supplier will assume Boeing Distribution Services Inc ' primary supplier code, "157583" and apply the code as specified within the applicable part marking specification.
- If applicable, the Supplier is to validate NDT requirements (100% / Sample testing). Also, confirm that the NDT stamp letter matches the actual test requirement.

HS333

Supplier shall utilize the latest revision using the Method as identified on the print.
HSM17, Part Stamping/Special Marking requirements applies.

Cage Codes 73030: if no part marking specification is indicated - default to HS333.

PN17.50

Supplier shall utilize latest revision marking requirement using the Method as identified on the print.
Unless otherwise specified, PN17.50, para 3.14.2 applies.

MIL-STD-130 (Source Control Item)

The Method for part marking will be identified on the Hamilton Sundstrand print.
HSM17, Part Stamping/Special Marking requirements apply

ESR1386

Supplier shall utilize the latest revision using the Method as identified on the print.

Additional details and a UTAS (Hamilton Sundstrand) Non-Destructive test stamp quick reference guide can be found at: <https://www.boeingdistribution.com/aero/supplier-resources/supplier-communications/>

For all waivers / exceptions / requests for clarity to part mark requirements, complete a SRI-QN form and submit to Boeing Distribution buyer.

<https://www.boeingdistribution.com/aero/supplier-resources/supplier-communications/>



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Goodrich Aerostructures Controlled Processes and Materials per ASQR-01 AND ASQR-01-AA.

The Goodrich Aerostructures Qualified Supplier Document (QSD) lists processes that require Goodrich Aerostructures approval per RPS 1.000-2 Controlled Processes and Materials. Nadcap accreditation is required for all controlled processes where applicable. Suppliers or subcontractors may only perform those controlled processes for which the supplier is listed in the QSD. Use of QSD listed sources does not relieve the supplier's responsibility for the quality of purchased materials and services.

This includes Goodrich S700 part numbers but not industry standards (NAS / AS / AN for example).

PART MARKING REQUIREMENTS:

Part marking shall be in accordance with Goodrich part marking specifications as called out on the drawing.

- If the supplier does not have a Goodrich designated supplier code, the supplier will assume Boeing Distribution Services Inc.'s primary supplier code, "13688" and apply the code as specified within the applicable part marking specification.

RPS13.99 (when applicable)

Supplier shall utilize the latest revision using the Method as identified on the specification.



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First Article Inspection Report (FAIR) for Customer Proprietary Parts

A FAIR shall be submitted to Boeing Distribution Services Inc with the **initial** shipment and as per rules for each OEM quality requirement (ref. Table I) and using AS9102 format. The FAIR shall be on file at the supplier's facility and available upon request.

Critical NOTES:

- 1. Honeywell Proprietary parts DO require a copy of the FAIR to be sent with the initial shipment and then whenever required, as per SPOC 124 Events Table.**
- 2. Reference QAP 33 Clause "R" (SPOC 124) for Honeywell Proprietary part's requirements and timing.**

A FAIR is also required if there has been:

- tooling change,
- drawing change (FAIR documenting attribute and/or notes changed),
- drawing changes which have no effect on product must be documented on a new FAIR stating, "no effect",
- change in the manufacture/production location.

G

A FAIR is not required if no changes have occurred per AS9102, 4.6f. Request buyer to update PO to remove G and add G.1.

The following information is required on the FAIR:

- Supplier Name
- Supplier Code
- Part Number
- Latest Revision
- Purchase Order Number
- Inspector Name / Stamp
- FAIR Date
- Blueprint Zones
- All Blueprint characteristics
- All Blueprint Notes (If a note does not apply, identify the note on the FAIR as N/A)
- Digital Product Definition (DPD) designs: ensure that the production, inspection & operations requiring verification are completed to achieve DPD design characteristics and are extracted, verified and included in the FAIR.

If a FAIR is not available, it may be substituted with an inspection report containing the same information contained in a FAIR **(does not apply if in violation of design holder's requirements). Exceptions will require prior quality assurance approval.**

Note 1:

Customer Proprietary Part Numbers require compliance to that Customer's Quality System Standard Requirements for FAIR (e.g. documentation, format and frequency). Customer Proprietary CAGE Codes may require First Articles (refer to TABLE I).

Table I provides examples of Customer Proprietary Cage Codes that require compliance. Additional CAGE Codes exist, requiring First Articles. Boeing Distribution Services Inc should be contacted as necessary, to ensure compliance to that Customer's System Standard Requirements.

G.1 Documents Required on File

The manufacturer of the product supplied must have a valid first article inspection report **compliant to AS9102** where the following on file **and available upon request**.

If any changes occur per AS102, 4.6f, then request buyer to update PO to remove G.1 and require FAI per design holder requirements (if specified).

G.2 Detailed Inspection Plan Required

The supplier of the product must submit a detailed inspection plan (DIP) applicable to the manufactured lot provided. Format is supplier option, but It shall be **compliant to AS9102, FORM 3 Characteristic and Accountability**. As a quality document, it shall remain available upon request.

Notification, Containment, and Corrective Action of Discrepant Orders

H

1. The supplier shall provide prompt written notification to Boeing Distribution Services Inc when suspect nonconforming products or processes are discovered to have shipped. Notification shall include:
 - Part Numbers
 - Traceability (lot, serial, and manufacturer-numbers),
 - Ship dates
 - Quantities
 - Purchase Order number
 - Description of the nonconformance.
2. Upon notification of non-conformity by Boeing Distribution Services Inc the supplier shall complete containment activity within 48 hours.
3. When formal corrective action is requested by Boeing Distribution Services Inc:
 - Enter containment in the Corrective Action Request within 48 hours
 - Submit a formal corrective action response by the specified due date
 - Extensions shall be requested on or before the due date
4. Boeing Distribution Services Inc uses an internal corrective action tracking system known as 'IQMS'. Email notifications will be sent to suppliers when a corrective action has been assigned.
5. When a shipment is received without the required documentation:
 - Corrected documents shall be submitted within 48 hours of specific request
 - Failure to submit required documentation within 48 hours may result in a formal rejection and/or corrective action
 - Shipment is subject to return within 30 days if documents are not corrected
6. When a shipment is rejected due to a non-conformance, shipment is subject to return if non-conformance has no supplier response within 30 days.

In the event the supplier has determined Boeing Distribution Services Inc has rejected material in error, the supplier shall contact the assigned Boeing Distribution Services Inc Supplier Quality Engineer or the Boeing Distribution Services Inc Buyer.



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I	<u>Lab Certified Source (LCS) Requirements</u> Supplier to certify hardware as tested to current Pratt & Whitney (P&W) LCS Materials Control Laboratory Manual requirements, including Section F-45 as applicable. All documents shall be stamped "Parts have been controlled to P&W requirements for LCS per P&W-MCL Manual Section F-17" or a similar statement.
J	<u>Supplier Acceptance Test Procedure (SATP)</u> Requires acceptance testing by the supplier in accordance with an acceptance test procedure prepared by the supplier and submitted for approval. A copy of the SATP data sheet must be submitted with each shipment.
K	<u>Fixed Process Control (Honeywell Aerospace SPOC 110, when Clause R is imposed on the order)</u> The supplier's manufacturing processing procedure must be submitted to the Boeing Distribution Services Inc Buyer and approved by the design authority prior to production of a part with a fixed process control. Once a fixed process approval has been obtained, any change requires re-submittal to the Boeing Distribution Services Inc Buyer and approval by the design authority prior to implementation. Fixed process control is specified by engineering documents, such as a note on the drawing, material specification or other document stating, "fixed process is required".
L	<u>Customer/Government Source Inspection</u> Customer source inspection is required prior to shipment from your facility. <ol style="list-style-type: none">1. If this is a government order, promptly notify the government representative who services your area so that appropriate planning for GSI can be accomplished. On receipt of this order, promptly furnish a copy to the government representative that services your area. If no government agency can be located, notify your Buyer immediately.2. If this is a commercial order, contact your Buyer to arrange for customer source inspection.
M	<u>MRB Authority</u> The supplier is <u>not</u> authorized MRB activity without receiving prior approval in writing by the cage code holder. For OEM designed product ONLY, the supplier may request material review consideration for nonconforming material that cannot be reworked to fully conforming drawing/spec requirements. The request must be submitted in writing to the Boeing Distribution Services Inc Buyer and Supplier Quality Engineer (SQE) contact point for coordination with the design authority. Nonconforming product, including shipments that do not meet documentation, certification, and traceability requirements shall not be shipped to Boeing Distribution Services Inc until prior approval in writing has been received. If MRB authority has been granted, the supplier must comply with the MRB instructions for marking the parts, please note that general C of C's do not need to be identified showing "MRB Approved" unless requested to do so by the MRB authority.



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N	<p><u>Aircraft Parts Documentation Requirements</u></p> <p>The item on the face of the purchase order must be an FAA or JAA/EASA approved item. The following conditions apply:</p> <ul style="list-style-type: none">• If the supplier holds PMA on the item, the item must have appropriate markings per the applicable FAA requirements and the statement “FAA-PMA” must appear on the Certificate of Conformance (C of C) or test reports. The C of C must also include a direct shipment authorization statement if the supplier holds direct shipment authorization from the Production Approval Holder (PAH).• If the supplier holds TSOA on the item, the item must have appropriate markings per the applicable FAA requirements and the statement “FAA-TSOA” and the TSO number must appear on the certificate of conformance or test reports. The C of C must also include a direct shipment authorization statement if the supplier holds direct shipment authorization from the Production Approval Holder (PAH).• In addition to all documents requested in clauses A, D, E, F and G, the supplier may provide an FAA 8130-3 or EASA “Form One”. <p>SUPPLIER MUST CLEARLY IDENTIFY EACH CERTIFIED PART THAT IS TSO AND/OR PMA APPROVED.</p> <p>If the supplier is the PAH, a production certificate statement of conformity with the production certificate number is acceptable in lieu of the documents requested in clauses A, D, E, F and G and fulfill the requirements of clause N, product must still be marked in accordance with FAA/JAA/EASA requirements.</p> <p>If the supplier is not the PAH and does not hold PMA or TSOA for the item being ordered, and the supplier cannot produce an 8130-3 tag, the supplier must take exception to this clause and request authorization to remove this clause from the purchase order. Failure to do so will result in the product being rejected.</p> <p>If the item is not currently FAA or JAA/EASA approved, clause N should be removed from the face of the purchase order prior to acceptance by the supplier.</p>
N.1	<p><u>FAA/PMA Marking Prohibited</u></p> <p>Parts provided on this Purchase Order are for OEM use only and not for the aftermarket. <u>DO NOT</u> mark with FAA/PMA.</p>



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PC700

This procurement is under Boeing's Federal Aviation Administration (FAA) issued Production Certificate 700 quality system supplier control program. Unless explicit contractual direction is given to the contrary, no articles (or constituent parts thereof) ordered by Boeing Commercial Airplanes shall contain any Federal Aviation Administration- Parts Manufacturer Approval (FAA-PMA) markings and the accompanying paperwork (e.g., packages, shippers, etc.) **shall not contain any FAA-PMA markings.** THE SELLER WILL PLACE THE FOLLOWING STATEMENT ON THE SHIPPING DOCUMENTATION OF ALL SHIPMENTS TO BOEING:

'Seller hereby acknowledges that the parts and/or materials being shipped under this order are intended for use under Boeing's Federal Aviation Administration (FAA) issued Production Certificate 700 and no articles (or constituent parts thereof) or the accompanying paperwork (e.g., packages, shippers, etc.) contain any Federal Aviation Administration- Parts Manufacturer Approval (FAA-PMA) markings.'

THE PREFERRED LOCATION FOR THE STATEMENT IS ON THE SHIPPING DOCUMENT, NEXT TO, OR FOLLOWING, THE CERTIFICATE OF CONFORMANCE (C of C). THE STATEMENT MAY BE PRINTED, STAMPED OR ATTACHED AS A LABEL OR STICKER TO THE SHIPPING DOCUMENTATION. IT IS ALLOWABLE TO REPLACE 'Seller' WITH THE COMPANY NAME OR 'WE'. Boeing requires that the provisions/requirements set forth above, as determined by the Seller to be applicable, be included in Seller's direct supply contracts as well as the obligation that they be flowed to the sub-tier supply chain. For purposes of this note, Supply Chain shall mean Seller's complete network of material, equipment, information, and services integrated into products and services. It focuses on direct and all lower-tier suppliers.

O

Airworthiness Approval Tag Requirement

FAA Form 8130-3, JAA Form One or EASA Form One required with each shipment.



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Requirements for Vendors Enrolled in Boeing Distribution Buyer Supplier Portal (BSP) Boeing Distribution Services Inc Bar Coded Supplier Shipping Label

- A bar coded shipping label is required on the outside of each box in each multi-box shipment.
- Multiple orders within one box shall have a bar code label for each unique order contained in the box and affixed to the outside of the box.
- When shipping a skid containing one unique order only, only one label is required.

CRITICAL NOTES:

A unique order is one Purchase Order / Part Number / Manufactured Lot combination. Multiple Purchase Orders for one-part number and/or multiple lots to fulfill one Purchase Order and part number are not one unique order.

A representative sample of the required Boeing Distribution Services Inc supplier bar code label is shown below.




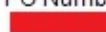










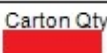
Vendors who have been incorporated into Boeing Distribution Services Inc' Buyer Supplier Portal (BSP) will be able to create their labels and track shipment status from the Portal. Vendors can obtain information regarding the portal from their buyer.

BSP bar code training slides can be found at: <https://www.boeingdistribution.com/aero/supplier-resources/supplier-communications/>

Other vendors with bar coding capabilities are encouraged to include bar coded labels.

Continued on next page

Bar Code Label Exam

		Boeing Distribution Inc. 3760 West 108 th Street Miami, FL 33018 USA	
Requested:		1 of 1	
Printed:			
PO Number			
PO Type			
Line Item			
		Part Number	
			Rev LATES
Pack Slip #	test		
Total Ship Qty			Carton Qty
			
PSL			



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P (Cont.)	Documentation requirements for multiple box shipments: 1. Each box in the shipment shall contain a copy of the required documentation or 2. the box containing the required documentation shall be labeled or clearly marked “DOCUMENTATION ENCLOSED.”
Q	<u>Lubrication Requirements (Bearings/Pulleys/etc.)</u> If lubrication is required, all lubrication dates must be current within six (6) months of the shipping date to Boeing Distribution Services Inc. <u>Honeywell designs</u> Unless otherwise required by specification: Bearings that are lubricated for use shall be shipped less than 6 months from the lube application date. Lube date must be included on manufacturing paperwork. Bearings lubricated with preservative compounds shall be inspected for corrosion prior to shipping if more than 5 years from the application date.
Q.1	If lubrication is required, all lubrication dates must be current within twelve (12) months of the shipping date to Boeing Distribution Services Inc. Lube date must be included on manufacturing paperwork. Bearings lubricated with preservative compounds shall be inspected for corrosion prior to shipping if more than 5 years from the application date.



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Honeywell Aerospace Quality Requirements

The latest version of the Honeywell Aerospace Supplemental Purchase Order Condition (SPOC) Manual, SPOCS 001, 002 or 003 are invoked on this order as per Note 1 below – minus SPOC 149. (Honeywell's SPOC 149 is not a requirement on these orders).

You must have access to the Honeywell Aerospace Supplier Portal (HASP) in order to review SPOC Manual, APSL and other required documents. Access can be obtained using: <https://scc.honeywell.com/irj/portal/scc>

Then use "I need an ID" link.

Contact your Boeing Distribution buyer or supplier quality engineer if needed.

Review of SPOC requirements is mandatory.

For purposes of interpreting SPOC Manual requirements by Honeywell Aerospace sites, the blueprint Cage Code will identify the Cage Code holder and Honeywell site. Review of HW SPOC Manual for requirements is mandatory.

SPOC Manual General Requirements Section 1.0, 1.1 and 1.2, in their entirety do not apply. All other SPOC Manual requirements as flowed are binding

The following also apply:

Suppliers with design authority are required to notify Boeing Distribution Services Inc promptly, in writing, of any changes of fit, form or function, or safety of product and obtain approval prior to manufacture and delivery. Supplier shall submit proposed changes to the Buyer including but not limited to: process – material – design – software.

When the source of supply is specified on the Honeywell drawing / technical data in any way, only those sources listed shall be used. Use of any alternate sources must be approved by Honeywell and added to the drawing/technical data before use. Contact your buyer for exceptions.

Suppliers shall be third-party registered and/or may receive periodic system audits, or be subject to periodic compliance audits by Honeywell and/or Boeing Distribution Services Inc. Suppliers assume the cost of systems audits.

Critical Notes:

- 1.) Adherence to the appropriate Group SPOC codes for the following, are based on your manufacturing authority, and are invoked on this order:
 - a.) SPOC 001 is for manufacturers with design authority
Certifications shall have the Honeywell part number.
Vendor part number must be referenced on either CofC or pack slip.
 - b.) SPOC 002 is for manufacturers without design authority ("build to print" items). May include Specification Control or Standard part prints that call out specific dimensional or Honeywell controlled processing methods.
 - c.) SPOC 003 is for standard and/or catalog hardware providers and other Vendor Controlled Items (HW VICD's). Example: "10 digit" drawings
- 2.) SPOC 124 rules for FAIR apply to all manufacturers of HW parts, to include all Purchase Orders issued by Boeing Distribution Services Inc. SPOC 124 does not apply to SPOC 003 parts.

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(Cont.)

3.) If a FAIR meeting all requirements of SPOC 124 has not been validated by a Honeywell FQE and uploaded to the Honeywell Net Inspect, and a hard copy has not been sent in with a Boeing Distribution Services Inc order, then the pertinent hard copy FAIR SHALL be sent with the next shipment of any part number and then again as necessary, in order to meet the SPOC 124 Event Table requirements.

A “bubbled” print establishing direct traceability to each print characteristic noted in the FAIR must be submitted with the FAIR.

If a FAIR is required to fulfill SPOC 124, neither Honeywell FQE validation nor Net Inspect upload is required for Boeing Distribution Services Inc Purchase Orders. Boeing Distribution Services Inc will use the hard copy provided to validate and upload as needed.

If a First Article is required per SPOC Event Table and the part number is an assembly:

- A copy of the AS9102 FAIR for each HW detail part in the assembly must also be included in the FAIR package for the assembly part number ordered.

SPECIAL NOTICE: Honeywell has redefined what constitutes part requirements regarding First Article exemptions in the SPOC Manual. Regular review of Quality Alerts and Unincorporated Changes is required.

Previously “SXXXXX” parts (ex: S9124-12) and Vendor Item Control parts (ex: 682-557-2107) were considered Standard and/or COTS items and were exempt from First Article and other SPOC 002 requirements.

That exemption has been removed.

“S” parts now require a First Article to be provided as per the Honeywell SPOC Manual and the Event Table for FAIRs.

Certain “S” parts are considered SPOC 002 because they have Honeywell controlled special processes in the design and so all SPOC 002 requirements apply.

All others are now considered SPOC 003 + SPOC 124 (First Article required).

Requirements for special attention in this category of a part include:

- SPOC 124 First Article
- SPOC 128 DIP
- SPOC 165 APSL requirements for controlled processes (HW approved processors for SPOC 002 parts)
- SPOC 420 APQP requirements: if you have never provided the Honeywell part number to BDSI, you must ask your BDSI buyer if this SPOC applies to your order.

Bearings manufacturers:

When a FAIR is required (partial or full), contact your buyer for instructions.

When a FAIR is the result of a 2-year lapse in production, the supplier SHALL note such on the FAIR.

4.) A completed Detailed Inspection Plan (DIP), meeting requirements of SPOC 128, and pertaining to the lot shipped, SHALL be provided with each shipment of SPOC 001 & SPOC 002 parts.

NOTE: Suppliers having either:

- current HW Self Release Approval
- Boeing Distribution Services Inc DIP process audit approval per Boeing Distribution Services Inc QWI-45 and QAF-89 or
- another Alternate Plan approved by Honeywell are exempt from this requirement.



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R (Cont.)	<p>Proof of all alternate plans will be required when used in lieu of a DIP. Contact your buyer or supplier engineer for details regarding DIP process audit approval. A signed release from DIP requirements will be provided upon successful completion of an audit.</p> <p>5.) All Material Certifications and controlled process certifications (SPOC 001 & 002 requirements) to meet current SPOC revision (type, class, grade): Certifications shall include name of process source, specifications and revision used. The physical and chemical process and heat numbers shall be indicated. Certifications must clearly state conformance to all specifications in their entirety, including embedded specifications with specific acceptance criteria, additional processing requirements and any specific requirements that pertain to hardware approval or acceptance. (Drawn directly from SPOC 140.2, Table III C of C Requirements)</p> <p>6.) SPOC 420 Advanced Product Quality Planning (APQP) and Production Part Approval Process (PPAP) If you are quoting a SPOC 001 or 002 part for the first time for Boeing Distribution, contact your buyer and validate if APQP is required prior to quoting and production. Where APQP is required, vendor shall be required to perform a APQP/PPAP Level 1,2,3,4 or 5 as designated by Purchase Order. Level is established by Honeywell and is based on part complexity per AG-5525 and SQG-5525. Boeing Distribution will provide that designation on Purchase Order.</p>
S	Left Blank
T	<p><u>Mercury Free Certifications</u></p> <p>Supplier must certify the supplied item(s) is/are Mercury Free. The certification must be in the form of a certification sheet. The certification sheet must contain the following information: (a) contract/ PO Number, (b) National Stock Number (NSN) (c) manufacturer's cage code and part number, (d) the date of shipment and quantity shipped and (e) the following statement:</p> <p>"The undersigned hereby certifies that the material and/or parts shipped on the subject order/contract conform to the requirements of the supplier purchase order/contract. Also, the material furnished is free from mercury contamination. Mercury bearing instruments and equipment which might have caused mercury contamination was not used in manufacture, fabrication, and assembly or testing of any material furnished under this order/contract."</p>



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Record Retention

Quality/Inspection records shall be retained on file by the supplier:

- Radiographic film - eleven (11) years unless an alternate term is approved.
- Non-traceable, non-serialized parts – eleven (11) years
- Traceable parts as identified on the drawing or purchase order - Indefinitely
- Serialized parts as identified on the drawing or purchase order - Indefinitely.
- Critical parts as identified on the drawing - Indefinitely
- Distributor standard off the shelf product - 7 years
- Certifications must be available to Boeing Distribution Services Inc within 48 hours from request.

MINIMUM retention periods, beginning with the date the order was completed. In the case where a specification, contract or purchase order requires a greater retention period, the more stringent requirement will apply.

<p>V</p>	<p><u>Quality Systems</u></p> <p>Manufacturing suppliers' quality systems shall be certified to ISO9001:2008, TS16949, AS9100/EN9100 or an approved alternate.</p> <p>Distributor's quality systems shall be compliant to AS9120/EN9120, AS7103/AS7104, ASA100, QS9000 or an approved alternate.</p> <p>Outsource vendors that are used to certify materials, test and calibration laboratory results, shall be certified to ISO/IEC 17025.</p> <p>Internal manufacturer labs shall be certified to ISO/IEC 17025, NADCAP certified or compliant with ISO/IEC 17025 and also maintaining certification to AS9100 Management Systems.</p> <p>All providers shall be willing to provide a copy of their certification(s) when requested.</p> <p>Supplier management shall notify Boeing Distribution Services Inc (via the Buyer) of all significant changes to the supplier quality system. Significant changes include but are not limited to:</p> <ul style="list-style-type: none"> • Change in location of facility • Change in ownership • Change in senior company management • Change in quality system • Loss of OEM Approval or Distribution rights • Loss or suspension of AS9100, AS9120, NADCAP <p>Boeing Distribution Services Inc will perform periodic evaluations of supplier's quality systems.</p> <p>Suppliers who are NOT third party registered:</p> <ul style="list-style-type: none"> • May receive periodic system compliance audits, but only as necessary to maintain their scope of approval. • May be subject to a compliance audit by Honeywell, in order to maintain their approval to provide Honeywell designed parts. <p>If not third party registered, and a compliance audit becomes necessary to maintain required approval, supplier assumes the reasonable and agreed cost and schedule.</p> <p>Failure to comply may result in disapproval as an active and approved supplier to Boeing Distribution Services Inc.</p>
<p>W</p>	<p><u>Acceptance at Supplier's Facility</u></p> <p>Source inspection is required prior to shipment by a Boeing Distribution Services Inc appointed source inspector unless the supplier is Honeywell or Boeing Distribution Services Inc Self Release or waived by Boeing Distribution Services Inc Quality Assurance. Evidence of Source Inspection or Self Release shall be annotated on the packing slip. (Self release status allows shipment without source inspection)</p> <p>The supplier shall make arrangements for source inspection at least 5 days prior to the required ship date. Call your buyer for direction.</p>



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X	<u>Suppliers with Design Authority</u> Suppliers with design authority are required to notify Boeing Distribution Services Inc promptly of any changes of fit, form or function or safety of product on this order in compliance with blueprint and obtain approval prior to manufacturing and delivery. Supplier shall submit proposed changes to the Boeing Distribution Services Inc buyer.
Y	<u>The Supplier Shall Provide a Packing Slip With Each Shipment</u> The packing slip shall include the following and shall be completely legible and reproducible: <ul style="list-style-type: none">• Purchase Order Number• Part Number (as ordered on Boeing Distribution Services Inc purchase order). Referenced part numbers are not acceptable.• Quantity• Material Shelf Life data (as applicable)
Z	<u>Self Release Requirements</u> Vendors accepted into the Boeing Distribution Services Inc Self Release Program shall maintain their process as per the Boeing Distribution Services Inc SR Audit and Agreement (QAF-108). All changes shall be approved by Boeing Distribution Services Inc Quality prior to implementation. All escapes shall be investigated and corrected with a documented Corrective Action. When an escape has occurred, at a minimum, the next three manufactured lots shall be 100% inspected to ensure process has been corrected.



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Three Previous Revisions:

REV P – (5/6/2019 – 12/5/2019)

- Added note to “What’s New” directing readers to previous revision history.
- Revised entire document to Boeing Distribution Services Inc. branding.
- Added additional QMS Standards to certain Design Holders (Table I)
- Reformat Clause “A” for better clarity
- Added barcode Serial Number requirement to Clause A
- Added notes and link for Waiver Exceptions to Clause A.2
- A.3: #21 deleted REACH requirements – already covered separately in REACH Requirements.
- A.3: #21 changed header to Space Program. Header is all that changed.
- A.8: added text and link for SRI-QN Form
- C: revised protection of materials and package requirements
- C.1: added link for Best Practices
- F.6: added text and link for Waivers/Exceptions
- H: Revised Note 6
- R: Revised Honeywell Portal link.
- Revised Critical Notes.
- Added SPECIAL NOTICE regarding SPOC 003 changes and Honeywell QALERT

REV N – (1/2/2018 – 5/6/2019)

- Reformatted “What’s New” Section to help focus on current revision changes.
- Added “Three Previous Revisions” Section at the end of the document and moved the last three QAP-33 revision summaries from “What’s New” to the end of the document.
- Added **ISO Reference (AS9100:2016 & AS9120:2016)**.
- **Clause A:** Clarified requirement for lot segregation.
- **Clause A:** Added two bullets for Electrical Authorized Distributors to include manufacturer C of C or authority letter for assembled parts.
- **Clause A9:** Added for chemical business C of C.
- **Clause C:** Added dimensional requirements
- **Clause H:** Correct “HQMS” to “IQMS”
- **Clause R:** Removed “Exception”. Believe it makes vendors think everything from there down is an exception rather than just next number.
- **Clause R:** Added #6 – APQP required.



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REV M – (8/2/2016 – 1/2/2018)

Corrected KLX Supplier Hyperlinks throughout the document.

Definitions: Added chemical related definitions

Clause A: Added Chemical Product requirements

Clause A.3:

- Revised right of entry statement to better align with AS9100 Clause 7.4.2 (g).
- Modified prohibited materials statement.
- Added requirement for EEA suppliers (item 22)

Clause C:

- Added chemical exemption to 40-pound weight limitation
- Added chemical packaging must protect against leakage

Clause C.3:

- Revised title from Frozen Goods to Temperature Controlled Product
- Added requirements for Temperature controlled product

Clause D: Added Chemical Material requirements

Clause E.4: Revised the entire clause

Clause F.2: Realigned “OXY” requirement

Clause F.7:

- Updated Goodrich requirement from QA-111 to UTAS ASQR-01 and ASQR-01-AA
- Added Goodrich part marking requirements.
- Added RPS 13.99 requirement.

Clause G:

- Added Digital Product Definition (DPD)
- Revised the last sentence

Clause P: Revised title

Clause R:

- Clarified HASP requirement and access flow down
- Revised Critical notes 1b and 1c
- Removed FAIR Tracker references in Critical note 3
- Clarified Critical note 4

Clause Y: Added Chemical Product requirements

Clause V: Added NADCAP comment