

CFN Supplier Flow Down: End user UTAS

Supplier must comply with CFN Standard Purchase Order Terms and Conditions and CFN-QA-SQR-0001 Supplier Quality Requirements Manual. Refer CFN website www.cfnprecision.com, suppliers tab.

UTAS Documents LS-SBU-A001-SQA and UTAS-SCM-PRO-0003-00 (replacing Document 300) and United Technologies ASQR-01 apply.

Supplied item/process/services shall be to the latest specification. For Boeing specifications refer CFN-QA-SQR-0006, refer CFN website www.cfnprecision.com suppliers tab.

Special process suppliers shall work to approved MPS/Technical Plan/Technique sheet and revision as applicable and be listed on UTAS Document 200 for the process and specification being performed. Note for UTAS customer specifications such as Boeing or Lockheed, the supplier must maintain the applicable UTAS customer approval. For Boeing D1-4426 Processes refer to the following link for a list of approved processors and information regarding Nadcap approval requirements:

<http://www.boeing.com/companyoffices/doingbiz/d14426/index.html>

For heat treat processors one hundred percent hardness inspection is required and must be certified as such on the certificate of conformance. For serialized parts, heat treat sources shall record actual hardness values for each serial number.

For machining suppliers;

Approved lubrication/coolant is required and must be documented on the certificate of conformance when BAC5540 and BAC5008 are required for post heat treat machining.

Calibrated functional gauges shall be utilized on threads and splines.

Dimensional inspection report required with each shipment.

All suppliers must complete UTAS SEAD checklist form with each shipment.

In addition to Certificate of Conformance requirements specified in CFN-QA-SQR-0001 suppliers working to D1-4426 Processes shall list the title of the process specification being performed, the date processing occurred and the processor's Boeing assigned code from D1-4426 listing.

For part classified as UTAS "CRITICAL PART" manufacturing plan approval per LGPS 8000 is required

For part classified as Boeing "DESIGNATED PART" manufacturing plan approval per D6-1276 is required

All O-rings (elastomeric materials) and seals shall have cure dates listed on certification

Refer next page for additional requirements for Raw Material Suppliers or sub-tier suppliers that procure material for product supplied to CFN:

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For Raw Material Suppliers or sub-tier suppliers that procure material for product supplied to CFN:

Raw material/forgings/castings:

- All forgings, castings and swaging's shall be identified with a vendor code or logo, which shall be specific to that particular manufacturer and/or per drawing requirements.
- The supplier shall maintain traceability from the raw material manufacturer's heat or lot numbers to each individual forging, casting and swaging. Heat or lot numbers shall be noted on the suppliers Certificate of Compliance.
- The Supplier's raw material sources shall have a process control methodology in place for identifying tracking and trending for the following key characteristics Ultimate Tensile Strength (UTS), yield strength (YS), Elongation, and Reduction of Area (RoA). Results and actions taken shall be made available upon request.
- In addition to the requirements of AMS 6419 and LSMS1000, producers of material supplied an certified to these specifications shall demonstrate on-going process capability and control with respect to the following key characteristics:
 - Transverse ultimate tensile strength
 - Yield strength
 - Elongation and percent reduction of area on every VAR heat produced
 - The material producer shall provide evidence to UTAS-LS-M&PT that the key characteristic data is analyzed per a documented procedure and falls within the process control limits as set by that producer and as determined by the available data
 - The mill shall also provide evidence that adverse trends in the key characteristic data are identified and corrective action is implemented. In particular, trends in the percent reduction of area shall be used to demonstrate control over the steel cleanliness.
 - The data and analysis shall be supplied to UTAS-LS M&PT through content Server on a quarterly (3 month) basis in a format which includes results for each material heat melted. See Content Server for instruction on submittal communication requirements
 - Failure to provide the analysis may be grounds for disqualification.
 - Raw material suppliers shall have a formal coupon retention program
- All bar stock material (each piece) shall be identified with the heat or lot number, purchase order number, or colour code as appropriate
- Material traceability (heat or lot) shall be transferred to the unused bar stock prior to storage.

Special requirements apply to material produced in company(s) located in a country other than the United States or Canada and the country does not have a Bilateral Airworthiness Agreement (BAA) for the product being supplied. If the Supplier intends to purchase raw material stock, forgings, castings and standard hardware from sources outside North America or from a country that does not have a BAA, the Supplier shall notify CFN SQA and obtain concurrence from CFN prior to commencing the procurement activity.

Special requirements for Low Hydrogen Embrittlement Cadmium Plating certifications (C of C).

-For Cadmium Plating utilizing low hydrogen embrittlement method on steel material with UTS higher than 180KSI, specific results will be require as requested on page no. 3 of this document.

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*Special requirements for Low Hydrogen Embrittlement Cadmium Plating certifications (C of C)
-For Cadmium Plating utilizing low hydrogen embrittlement method on steel material with UTS higher than 180KSI, specific results will be require as requested below:*

1. *Plating specification _____ Class ____ Type _____*
2. *Calculated surface area plated _____ sq. in.*
3. *Actual amperage applied during the plating operation _____ A.*
4. *Required current density _____ ASF.*
5. *Calculated current density _____ ASF.*
6. *Required maximum delay to bake operation _____ hours.*
7. *Actual delay to bake operation _____ hours.*
8. *Required bake duration/time _____ hours.*
9. *Actual bake duration/time _____ hours.*
10. *Required bake temperature _____ 'F +/- _____ 'F*
11. *Actual bake temperature _____ 'F*