

## Q2A – First Article Inspection (FAI) – AS9102

\* Revised      \*\* Added

NOTE: A hard copy of this document may not be the document currently in effect. The current version is always the version on the Lockheed Martin network.

The terms “Item” (plural “Items”), “PO”, “Buyer”, and “Seller” used herein shall have the same meaning as the terms “Work”, “Contract”, “LOCKHEED MARTIN”, and “SELLER”, respectively, as may be defined in another provision of the Purchase Order (“the PO”) of which this Quality Clause Q2A is a part.

### SCOPE:

First Article Inspection is defined as a verification of two key elements:

- Conformance to all engineering requirements
- Demonstration of stable, repeatable processes

### DEFINITION:

#### FIRST ARTICLE INSPECTION PLANNING

First Article Inspection (FAI) planning prior to first production run parts. FAI Planning typically involves:

- Activities to be performed throughout the First Article Inspection process and the responsible organizations for those activities
- Ensuring approved Special Process, laboratory, and material sources are u

**GENERAL REQUIREMENTS:**

- A. All elements of this clause are applicable to the PO line item(s) referenced on Buyer's PO. Any lower-level detail parts which comprise the top level PO line item (if applicable) will comply with the First Article Inspection requirements as stated in AS9102. Seller may obtain copies of AS9102 from the Society of AutomotikSocuO6.6( l)(i)2.6(kS)256.7(i)2.7entcp9(m)-6( )11-6.66 Td ( )Tj -0.0

PO, to ensure that the changes have had no adverse effect on Items delivered under the PO. This partial or full FAI requirement also includes changes to non-deliverable software and revisions in programming used in numerical controlled machines, test stations, coordinated measuring equipment, etc.

**NOTE:** Paragraph H augments the requirements of AS9102.

Seller shall adhere to the requirements of Paragraph H and AS9102, which require the performance of a full or partial FAI when any of the following events occur:

1. A change in design affecting fit, form, or function of the part.
  2. A change in manufacturing source(s), processing source(s), process(es), inspection method(s), location of manufacture, tooling, or materials, that can potentially affect fit, form, or function.
  3. A change in numerical control program or translation to another media that can potentially affect fit, form, or function.
  4. A natural or man-made event, which may adversely affect the manufacturing process.
  5. A lapse in production for two years or as specified by the Customer (reference Para. B).
- I. Seller shall notify Buyer's assigned Supplier Quality Engineer a minimum of 5 days prior to creating or starting any changes identified in paragraph H above or in AS9102 that affect Items delivered under the PO. Seller shall submit documentation of complete or partial FAIs accomplished as a result of such changes to Buyer's assigned Supplier Quality Engineer.
- J. The following Items shall not require FAI, unless otherwise directed by Buyer:
1. Standard hardware and electronic piece parts (AN, MS standard hardware, etc.),
  2. Commercial Off-the-



5. Review documentation (routing sheets, manufacturing/quality plans, manufacturing work instructions, engineering, etc.) to ensure operations are planned with the appropriate level of detail and clarity. Planning review should include Production and Inspection steps.
6. Verify that approved Special Process sources are used (as applicable) and the manufacturing planning/routing documents call out correct specifications and planning/routing documents should contain sufficient detail to ensure compliance to specifications.
7. Verify employee certifications required to perform all tasks listed in operation cards (Planning) are identified and appropriately managed through Seller's quality system.
8. Verify that Key Characteristics and/or Critical-To-Quality requirements have been identified, as applicable, and that adequate measurement and documentation plans are in place.
9. Verify design characteristic requirements are identified and have inspections traceable to each identifier.
10. Verify part specific gages and tooling used as media of acceptance are called out in the planning, as applicable, and are enrolled in Seller's calibration recall system.
11. All tooling used as media of acceptance shall be verified against the applicable requirements of engineering, master tooling, etc.
12. Verify that all dimensioned characteristics not accepted with special tooling as media of acceptance have appropriate measurement and/or sampling plans.
13. Successful fit check, accomplished at the aircraft assembly level.
14. Implement and validate any/all corrective actions resulting from non-conformances identified on the initial production unit.

After accomplishment of this verification on the first component build, all planning, tooling, media of acceptance, and other means of production shall be managed under Seller's configuration control process. All operations will continue to be monitored for any changes or events that potentially alter the validated production system.

#### **DETAILED REQUIREMENTS:**

##### **FAI Entrance Criteria**

- A. Buyer-designed items: FAI documentation requirements (AS9102 forms or equivalent) begin once FAI planning is complete and production of deliverable parts begins with released, baseline engineering. Only one FAI report (AS9102 forms or equivalent) will be required.  
**Note: Exceptions or deferrals will be per Buyer's direction.**
- B. Seller-designed items: FAI documentation requirements (AS9102 forms or equivalent) begin once FAI planning is complete and production of deliverable parts begins with released baseline engineering, approved Acceptance Test Procedure(s)(ATP), or approved variances (i.e., for yet to be approved ATPs) and Buyer's Supplier Quality Engineer has been notified. Only one FAI report (AS9102 forms or equivalent) will be required.  
**Note: Exceptions or deferrals will be per Buyer's direction.**

**FAI Exit Criteria**

A. **Buyer-designed items:** FAI will be declared complete upon:

- Manufacturing of a minimum of (6) consecutive parts,
- Internal rework quantities not to exceed 66 internal rework defects per thousand inspection points,
- Initiation of no more than two (2) Seller-responsible