

## ***AS9102 First Article Inspection Report (FAIR) Common Mistakes***

This guideline was developed in combination with AS9102 Rev. B to address recurring issues highlighted during FAIR review at GKN so that first time acceptance can be achieved and schedule delays are reduced. This guideline is not inclusive and the FAI must be in compliance to AS9102. Please review your customer's requirements for anything not covered by AS9102.

### **Form 1:**

- Field 5-Part Revision Level: List the latest part revision that affects the FAI part.
- Field 6-Drawing Number: The full DPD data set number must be listed for Model based parts/assemblies. Include the MBD Number and Parts List Document Number.
- Field 7-Drawing Revision Level: This is for the Model Revision and Part List Revision levels.
- Field 8: “SMI Rev xx” goes here. The SMI (Special Manufacturing Instructions) revision is on the PO.
- Field 11-Supplier Code: Use the GKN assigned Code “VXXXXXXXX” that is noted in the Purchase Order. The Supplier’s Mfg. Cage Code can be noted in addition to the GKN assigned Code.
- Mark either a full or partial FAI.
- Reason for Partial FAI: Detailed explanation for the partial is required for all partial FAIs.
- Verify that Columns 15, 16, 17, and 18 have been completed for all lower level detail part numbers on FAIRs for assemblies.
- Mark either FAI complete or FAI not complete.
- Sign, print or use a unique mark, and date form.

### **Form 2:**

- Use of Approved Special Process Suppliers, material, laboratory and customer required sources per the defined specifications and purchase order. Verify all material has been manufactured by manufacturers noted on applicable Qualified Manufacturing List or Qualified Products List. Manufacturing certifications will be required as part of the FAIR.
- Traceable certification number must be noted for all material and special processes. When material is serialized, the serial number of the material should be used.
- For consumable materials, such as sealant, adhesion promoter, etc., must be on form 2 as appropriate. These are items not on the bill of materials on the part list. Subassemblies are to be listed on form 1.
- Field 3-Serial Number: serial number must be entered for serialized parts.
- Field 7-Code: The customer-designated code must be noted for the specific material, process, or testing, as applicable.
- The supplier name, address and designated code (customer approval/identification code) must be noted for each material or process.
- Additional Support data for Form 2 (as applicable):
  - Material Certifications noting Specification Revision
    - – Copies of the original mill certifications are required (no material substitutions are allowed unless approved by GKN)
  - Process Certifications noting Specification Revision

- – Actual thickness verification of coatings i.e. Anodize, paint, etc.
  - – Paint Batch Lots with paint manufacturer noted.
- Heat treatment Certifications noting Specification Revision
- Non Destructive Testing ( NDT) noting Specification Revision
- Sign, print or use a unique mark, and date form.

### **Form 3**

- All Drawing Notes and characteristics must be addressed on the FAIR. For Drawing notes that do not apply to the FAI part/assembly, 'Not Applicable' (N/A) shall be noted in the Remarks Section. It is acceptable to group notes which are not applicable together. ie.-'notes 5-9 N/A'.
- Positional Tolerance: Per AS9102 Rev. B - NOTE: Coordinate Measurement Machine (CMM) data alone would not be acceptable for a positional tolerance; the results shall show the actual positional value. Raw data is not acceptable. Tolerance must be stated as in the model or engineering for position.
- Designated/Qualified Tooling: - Record either the tool identification number for specific designed tooling (as applicable) or the type of qualified tooling used to validate product design characteristics in Column 10.
- Sign, print or use a unique mark, and date form.
- Additional Support data for Form 3 (as applicable):
  - Ballooned Print(s) or Model Snapshots with the noted corresponding Characteristic Numbers from Form 3.
  - Related CMM or Laser Tracker Reports with noted Characteristics Numbers to supplement the documented actual measurements noted in Form 3.

### **Partial FAI Requirements:**

- A full or partial FAI for affected characteristics shall be performed when the following occurs:
  - Design changes affecting fit, form or function of the part.
  - Change in manufacturing source, process, inspection method, location of manufacture, tooling or materials.
  - Change in the NC program.
  - Implementation of a corrective action to complete a previous incomplete FAI.
  - Lapse in production of two years as defined in AS9102.