



# Supplier First Article Inspection Report Standard

## Reference:

AP0425, AS9100, AS9102, AS9103, AS9131

For additional tutorials on preparation of the AS9102 visit the SAE- IAQG website. IAQG has published both a pdf checklist and a PowerPoint tutorial for guidance in the preparation of the AS 9102 Forms.

## Purpose:

This supplementary document is to assist in the preparation of the AS9102 forms. It should not be considered a replacement for the AS9102 standard. **The standard supersedes any information contained below, with the exception of the bold notes on page 2, which are specific requirements of Kavlico.**

## Specification:

### A First Article should be performed when:

- There is a change in the design affecting fit, form, or function of the part. (Rev changes)
- There is a change in the manufacturing process that can potentially affect fit, form, or function of the part, such as:
  - Manufacturing process change
  - Change of manufacturing location
  - Change of tooling or materials used to manufacture part
  - Inspection method changes
  - Manufacturing sources
- Change in numerical control program that can potentially affect fit, form, or function
- Natural or man-made event that may affect the manufacturing process
- A two year lapse in production has pass
- Customer requires a First Article



**Nonconformance:**

Any nonconformance affecting the part must be closed out before the FAIR can be considered complete. Corrective actions must be implemented. The FAI shall be re-done for those affected characteristics and the results must be recorded. **(Refer to AS9131)**

**Key Characteristics:**

**(Refer to AS9103)** Suppliers will control any features identified as Key Characteristics per AS9103. Supplier shall maintain records per AP0425 section 6.2.1. Records must be available for review by Kavlico on request.

**Pre-Fair:**

1. Review material certifications for compliance and ensure that they refer to the correct specification being called out on the print.
2. Verify that approved Special Process sources are used **(Refer to Kavlico AP0425)** and that all documentation calls out the correct specification.
3. Verify part specific gages and/or toolings are qualified and traceable, as applicable. For example, an inspection fixture must be Kavlico qualified and approved.
4. Verify that EVERY design characteristic requirement is accounted for, uniquely identified and has inspection results traceable to each unique identifier.

***Note: Kavlico requires a bubble drawing in which all dimensions, notes, and block tolerances are uniquely identified and referenced to on the appropriate AS 9102 Form. Each individual call out in the block tolerance should be accounted for and identified on the bubble drawing. For example: "Remove Burrs and Break Sharp Edges" should be identified uniquely on the bubble drawing individually from the "Surface Finish" and individually from the "Parts to be Clean and Free of Oil" requirements. They should be listed individually on FORM 3 and referenced to the unique identifier on the bubble drawing.***

5. All results from inspection of the Design Characteristics must be expressed in quantitative terms (Variables Data). Attribute Data is permitted where qualified tooling is consistently used as a check feature, such as a go/no-go gauge for threads.



## FAIR

1. **(Refer to AS 9102)** Blanks AS9102 forms 1, 2, and 3 can be found at the end of the standard as well as the specific instructions for completing the forms.
2. Each field on the forms is color coded to identify them as required, conditionally required, or optional.
  - a. Yellow (or light gray) fields are REQUIRED. This information is mandatory and must be included on the forms.
  - b. Blue (dark gray) fields are CONDITIONALLY REQUIRED. This information must be completed when applicable.
  - c. White fields are optional. These fields are provided for convenience and traceability.
3. While a different format form may be used, it must contain all the same fields as the forms found in AS9102 and must have the same field reference numbers.