QINETIQ	Supplier Quality Clause M1, First Article Inspection, Guide		
Document Number:	QMS0013033	**Revision:**	A
Document Owner:	Quality	**Effectivity Date:**	See PDM

The following document serves as guidance in execution of QinetiQ Supplier Quality Clause M1, First Article Inspection. If there is any conflict identified between this document and QinetiQ's quality clause, QinetiQ's quality clause shall take precedence.

1. AS9102 Rev C Resources

For suppliers not familiar with the new requirements of AS9102, QinetiQ suggests the following be reviewed:

1. Procure SAE AS9102 Rev C: AS9102C: Aerospace Series - First Article Inspection Requirements - SAE International
    a. Procurement of this standard will additionally provide access to the AS9102 Rev C FAIR forms
2. Resources provided by the International Aerospace Quality Group, IAQG:
    a. 9102 Key Changes from Rev B to Rev C
    b. IAQG AS9102 Rev C Forms
3. Resources provided in the IAQG Supply Chain Management Handbook (SCMH). Note that access to these resources requires registration using this link: SCMH User - IAQG SCMH
    a. First Article Inspection and 9102 Standard Webinar
    b. Aerospace 9102 First Article Inspection Requirements Guidance

2. QinetiQ Quality Clause M1 FAI Plan Approval

Per QinetiQ Quality Clause M1, QinetiQ requires review and approval of the supplier's FAI plan for the first part being supplied to QinetiQ that requires quality clause M1. This means that after a supplier has received approval of an FAI plan:

- Plans do not need to be submitted for subsequent orders of the same part, regardless of revision or deviations applied.
- Plans do not need to be submitted for orders of any other part number.

The submittals for FAI plan approval include:

1. Completed QinetiQ Form QMS0013032
    a. The form is available on QinetiQ's website, here: Contract Terms & Supplier Quality Clauses (qinetiq.com)
    b. Directions on how to complete the form are imbedded directly in the form.
2. Prefilled First Article Inspection Report (FAIR)
    a. All elements of the FAIR should be filled out, except:
        i. Form 1, Fields 18, 19-26
        ii. Form 2, Fields 10, 12 and 13
        iii. Form 3, Fields 9, 11 and 12
3. Balloon drawing

3. QinetiQ Quality Clause M1 Final Submittal

With shipment of deliverable material, a completed FAIR shall be provided. In accordance with QinetiQ's quality clause and AS9102 Rev C, the following shall be supplied, as applicable to the part/assembly being manufactured:

1. AS9102 Forms 1-3, or equivalent as allowed per AS9102 Rev C, Section 4.7.1
2. Balloon drawing
3. Document listed as the Manufacturing Process Reference on Form 1, Field 9. Note it is permissible to redact any portions of this document in order for supplier to remain compliant with their own internal control of documentation procedures.
4. All lower-level FAIRs listed on Form 1, Field 18 and their associated objective evidence required by AS9102.
5. Certificate(s) of conformance listed on Form 2, Field 10.
6. Acceptance report number(s) listed on Form 2, Field 12.
7. For characteristics results on Form 3, Field 9 that require an associated report or certificate to provide a pass/fail result, a copy of the associated report or certificate.
8. If a nonconformance is listed on Form 3, Field 10, a copy of the nonconformance.

4. Highlighted AS9102 Rev C Requirements

The following are AS9102 Rev C requirements that QinetiQ saw suppliers having difficulty meeting when working to AS9102 Rev B, or new requirements in AS9102 Rev C that QinetiQ identified as potentially causing challenges, or would benefit from having additional visibility.

1. ***Requirement:***
   Per AS9102 Rev C, Section 1.3, the standard also applies to external suppliers providing special process(es). These suppliers can meet the AS9102 requirements by:
   a. Documenting the design characteristics and associated results on a First Article Inspection Report (FAIR) or,
   b. Documenting the design characteristics and associated results on a detailed CoC.

   What Does This Mean?
   For suppliers completing a special process, a first article inspection report or detailed CoC will need to be provided for the process. If an external supplier is performing the process, the requirement will need to be flowed to that supplier and required documentation obtained with receipt of completed part(s).

2. ***Requirement:***
   Per AS9102 Rev C, Section 4.5, nonconformances against design characteristics are to be recorded on Form 3, Field 11 and documented on Form 1, Field 19.

   What Does This Mean?
   Any nonconformances that occur during the manufacturing process shall be recorded here, even if the nonconformance was reworked and brought back to print.

3. ***Requirement:***
   Form 2, Field 9 is used to indicate if special process(es) or material sources require customer approval, and if customer approval is required, did the approval occur.

What Does This Mean?

Supplier needs to input one of the following into this field:

- Yes – Customer approval of the special process or material source is required, and the customer has approved.
- No – Customer approval of the special process or material source is required, and the customer has not approved.
- NA – Customer approval of the special process or material source is not required.

4. ***Requirement:***

Form 3, Field 10 requires recording designed or qualified tooling. Per AS9102 Rev C, Section 3.9, designed tooling is defined as “Product specific tooling [e.g., check fixtures, Coordinate Measurement Machine (CMM) program] specifically made to validate the design characteristics of a product.”. Per AS9102 Rev C, Section 3.18, qualified tooling is defined as “Universal (not part specific) calibrated monitoring and measuring equipment (e.g., go/no go gauges, thread gauges, radius gauges) used to validate product design characteristics using attribute data.”

What Does This Mean?

a) Calibration information does not need to be recorded. If this information is significant for your company, it may be recorded in Form 3, Field 12.
b) Variable tooling (Not defined in AS9102 Rev C) does not need to be recorded. Variable tools are not static and can measure multiple dimensions. Examples include calipers, torque wrenches and micrometers.