

AS9102 - First Article Inspection (FAI) Supplier Process Steps

1.0 Purpose

- 1.1** These process steps are intended to assist in complying with the First Article Inspection requirements set forth in AS9102. These are intended for clarification only, not to supersede any requirements set forth in AS9102.
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2.0 Responsibilities

- 2.1** - It is the responsibility of PSEMC suppliers to complete AS9102 FAI forms when Quality Clause **SQC 70, 70A, 70B, or 70C** is applicable to the purchase order (refer to #842).

2.1.1. - SQC 70-First Article Inspection (FAI) Each Order

This clause requires a FAI with every order. The FAI shall be conducted on 1 part that is representative of the lot provided unless otherwise specified. The FAI will be performed on all applicable drawings (including notes) and specifications. All suppliers must use the AS9102 format. The FAI must be maintained by the supplier and be made available for PSEMC review upon request. The First Article shall include a ballooned drawing along with the First Article Inspection Report. The part/s used to perform the FAI must be clearly identified and included with the shipment. The First Article Inspection Report shall include:

- A. Tool part number and serial number.
- B. Cavity ID number (Note: if tool has multiple cavities, the FAI must be performed on each cavity)

2.1.2. -SQC 70A- First Article Inspection (FAI) As Req.

The supplier shall perform an initial FAI as defined in SOC 70. After the initial FAI is performed, supplier resubmittals are only required if there has been a lapse in production for more than one year or as defined in AS9102(C) Par. 4.6.f.6.

If the supplier has not had a lapse in production that exceeds 12 months, the supplier must state on a certification that:

1. This product has not seen any lapse in production that exceeded 12 months.
2. There have been no changes to the manufacturing process or product design or any other items as noted in AS9102(C) Par. 4.6.f. since the first article was performed.

2.1.3. - SQC 70B- First Article Inspection (FAI) As Req.

This clause has the same requirements of SQC 70A except the lapse in production cannot be greater than 6 months.

2.1.4. - SQC 70C- First Article Inspection (FAI) As Req.

This clause has the same requirements of SQC 70A except the lapse in production cannot be greater than 24 months.

3.0 Instructions

- 3.1** - FAI Forms may be completed electronically (preferred) or using permanent ink.
- 3.1.1** - Entries must be legible. If an error should occur when recording data on any documents, a single line shall be placed through the incorrect data, and the correct data shall be recorded, dated and initialed.
- 3.1.2** - White-outs or write-overs are not allowed
- 3.2** - The words "Shall" and "Must" indicate mandatory requirements.
- 3.3** - Reference characteristic, dimensions shown in parenthesis on drawing, must be bubbled on the FAI and have a measured result. i.e. (Ø.250)
- 3.4** - Use more than one line if needed for any characteristic.
- 3.5** - When assemblies and sub-assemblies are subject to FAI, each part and process within the assembly or sub-assembly shall have a separate FAI. Additionally, an FAI shall be performed on the completed assembly or sub-assembly.
- 3.6** - Material cannot be accepted by PSEMC unless FAI Forms 1,2, and 3 with bubbled drawing, and any required certifications are complete and correctly executed.

Form 1: Part Number Accountability (Sheet 1 of 3)

Box 1. Part Number - **Must put PSEMC's Part Number with Dash Number** (If applicable)

Box 2. Part Name - **Must Put Part Name as stated on PSEMC's Drawing**

Box 3. Serial Number - Put serial # or NA

Box 4. FAI Report Number - List Supplier Specific Number

Box 5. Part Revision Level - **Must Put PSEMC's Revision from Drawing**

Box 6. Drawing Number- **Must Put PSEMC's Drawing Number**, (located under part name)

Box 7. Drawing revision level - **Must Put PSEMC's Drawing Revision** (Same as Box 5)

Box 8. Additional Changes - Must list additional documents used with drawing or put 'NA'.

Eg: DCN's, VIR's, E.O.'s, ACN's, etc.

Box 9. Manufacturing Process Reference - Reference number to mfg. process
i.e. job number or work order number

Box 10. Organization Name -Must put name of organization performing FAI

Box 11. Supplier Code - Put PSEMC assigned 5 digit supplier code (located on Purchase Order)

Box 12. P.O. Number & Line Item- Put PSEMC's Purchase Order number

Box 13. Detail Part, Assembly FAI - Check 'Detail' if it is a single piece part, if not check 'Assembly'

Box 14. Full FAI/Partial FAI - If 'Partial FAI', fill in reason. If 'Full FAI', check next to 'Full FAI'

The following boxes are for *assemblies*. If the FAI is for a single piece part, skip to box 19.

Box 15. Part Number- Put the 'PN' for Each of the Parts that Make Up the Assembly

Box 16. Part Name - Put Part Name for Each of the Parts of the Assembly

Box 17. Part Serial Number - If No Serial Number, Put 'NA'

Box 18. FAIR Identifier- If FAI is for an assembly, put in report number (may be Lot#) or put 'NA'

Box 19. Does FAIR Contain a Documented Nonconformance(s)?- When a nonconformance(s) has been documented in the FAIR, check "Yes"

Box 20. Signature - Person filling in FAI must sign. Electronic signature is acceptable.

Box 21. Date - Date when FAI was signed

Box 22. Signature - Person reviewing FAI must sign. Electronic signature is acceptable

Box 23. Date - Date when FAI was reviewed

Box 24 - 25 Are to be completed by PSEMC's Quality Department (leave blank)

5.0 **Form 2: Product Accountability-Raw Mt. (Sheet 2 of 3)**

Box 1. Part Number- **Must put PSEMC's Part Number with Dash Number**(if applicable)

Box 2. Part Name - **Must Put Part Name as stated on PSEMC's Drawing**

Box 3. Serial Number - Serial # or NA

Box 4. FAIR Number- List supplier specific number

Box 5. Material or Process Name - Must enter the material name and all processes such as Anodize, Passivation, Heat Treat, etc. listed in the material block or in the notes sections of drawing **EXACTLY** as shown on PSEMC's drawing ***

Box 6. Specification Number - Must enter the material specification and all process specifications **EXACTLY** as shown on drawing***

*****Note:** 1) Material Specifications and Process Specifications must match PSEMC's drawing **EXACTLY**. If Supplier cannot match specifications on drawing, a **VIR** (Vender Information Request) **must be submitted for PSEMC's approval prior to shipment and a copy of the approved VIR sent with cert package.**

2) If material or process specifications have been superseded, include Both the drawing specification followed by '**S.S. by**' then Include the new specification (i.e. QQ-P-35, '**S.S. by**' ASTM 5125)

3) List only the spec that is applicable to this submission (not all possible alternatives)

Box 7. Code- If no code identified on drawing put 'NA'

Box 8. Supplier - Put name of material or process supplier that is designated on the material or process certification. Including full address or CAGE CODE

Box 9. Customer Approval Verification (Yes/No/Na) - Put 'NA'

Box 10. Certificate of Conformance Number- Must put a reference number from attached material and process certifications. This can be an actual cert. #, p.a. number, heat number, etc.

Box 11. Functional Test Procedure Number - Include any and all testing according to drawing notes. IE: Hydrostatic, Pressure, electrical testing, etc. Include report number attached to cert package

Box 12. Acceptance report number, if applicable - Leave blank

Box 13. Comments - Fill in any comments or leave blank

6.0

Form3: Characteristic Accountability, Verification (Sheet 3 of 3)

Box 1. Part Number- Must Put PSEMC's part number with dash number (If applicable)

Box 2. Part Name - Must Put part Name stated on PSEMC's drawing

Box 3. Serial Number - Serial # or NA

Box 4. FAIR Number- List supplier specific number

****Note: 1)** Form 3 must correspond with a **'bubbled'** drawing provided by the organization performing the FAI. The 'bubbled' drawing must be PSEMC's current drawing and have a circled number (Char No.) next to each dimension on the drawing - i.e. 

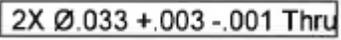
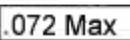
2) All notes in the 'Notes Section' (including removed items) of the drawing must be 'bubbled', even if they are material, testing or processes listed on Form 2... Note descriptions may be condensed. Eg: Note 1: Material. Note 2: Passivation. Etc.

Box 5. Char No. - List the number of each characteristic 'bubbled' on drawing (i.e.1,2,3)

Box 6. Reference Location - Drawing Location (i.e. B3, C6)

Box 7. Characteristic Designator- List the notes in this section (i.e. Note 1, Note 2, Dimension, Angle, Weld)

Box 8. Requirement - Fill in dimension **EXACTLY** as shown on drawing *with tolerances.

i.e.  or 

****Note: 1) Must Be Bubbled:**

A) True Position, Parallelism, Concentricity, Flatness, etc. **must be 'bubbled'** on the FAI

i.e.  or 

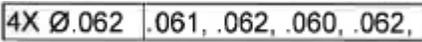
B) Reference Dimensions - dimensions shown in parenthesis - i.e. (Ø.250)

2) Do Not Bubble:

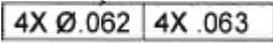
A) Basic Dimensions - dimensions shown in boxes - i.e. 

Box 9. Results - Fill in Results

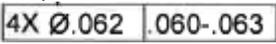
****Note: 1)** Dimensions that are 2X or 4X must show all dimensions in the 'Results' Box

i.e. 

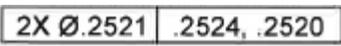
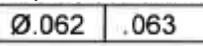
2) If all measured results are the same for a 2X or 4X dimension, it is acceptable to put 4X followed by the measured result in the 'Results' Box

i.e. 

3) It is also acceptable to record the minimum and maximum measured results (range)

i.e. 

4) Record results to the same number of decimal places as the drawing dimensions.

i.e.  or 

Box 10. Designed Tooling - Record designed or qualified tooling with tool ID or put 'NA'

Box 11. Non-Conformance Number - Put 'NA'

Box 12. Additional Data/Comments - Record standard instrument tool used in measurement and tool ID
i.e. Calipers, Drop Micrometer, Comparator, etc.