

# GENERAL DYNAMICS

## Ordnance and Tactical Systems

### Weapon Systems Supplier Quality Requirements Site 21-Quality – Williston VT / Saco ME

Quality Clause	Revision	Phase In Date
<b>Q111</b>	<b>1</b>	<b>05/02/2024</b>

## Q111–First Article Inspection AS9102 - 2 Year Req

### Requirements

First Article Inspection Report (FAIR) must be submitted to Supplier Quality Assurance and approval received before shipping material. Do not include the FAIR with the first material shipment. GD-OTS approval of the FAIR locks the process and it shall not be modified without written approval by GD-OTS in advance. For SEP suppliers the more restrictive requirement of QSP-INS-53.13 or Q111 applies. FAI will be performed on a part from the initial production lot provided by the supplier.

Any modifications to these requirements shall be specified within the Purchase Order.

The FAIR includes all of the following:

- 1) First Article Inspection and any required test results submitted per AS9102;
- 2) process flow diagrams generated to include manufacturing, inspection and special process operations;
- 3) manufacturing process (e.g., routing sheets, manufacturing/quality plans, manufacturing work instructions, etc.).
- 4) evidence that indicators of process control are established. These may include but are not limited to monitoring specific characteristics, process capability studies, key characteristics identified, functional checks, and required frequency of gage calibration or gage R&R.
- 5) If part marking is required per drawing, a photo of the part marking as applied on the part must be included with First Article package. Photo must clearly depict marking content and location.

Clarifying information and instructions:

- 1) AS9102 forms, or equivalent, shall be used to document the results of the first article inspection as required in the specification. These forms may be generated by any media but must contain all the information required by AS9102.
- 2) Report actual dimensions/results for all characteristics as well as applicable drawing notes.
- 3) Multi-cavity molds/dies require each cavity to be qualified.
- 4) The supplier shall forward the FAIR along with applicable material or test data/certifications (e.g., NDT, painting, plating, composition, X-ray, functional testing, etc.) with the lot. The completed routers supporting the FAIR must be available upon request.

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- 5) The supplier is required, unless permission is granted contractually, to use the same unit of measure as specified in the technical data package when reporting inspection.
- 6) A representative of the supplier's Quality Department shall review, sign, and date the report.
- 7) At the discretion of GD-OTS, during the performance of the FAI, the part and its required systems, procedures, and facilities are subject to surveillance by purchaser representatives.
- 8) Seller shall notify Supplier Quality Assurance before production begins for the coordination and planning of the FAI. FAI may include the witnessing of in-process inspections to be accomplished during performance of FAI.
- 9) A planned, complete, independent, and documented inspection and verification process to ensure that prescribed production processes have produced an item conforming to engineering drawings, DPD, planning, purchase order, engineering specifications, and/or other applicable design documents.  
NOTE: The intent of independent as referenced above is to mitigate the effect of measurement error. This includes ensuring the person that verifies the characteristic for the first article is not the same as the person that generated the characteristic. Self-inspection (i.e., operator self-verification) is not considered independent. The equipment used to verify the characteristic should be different from the equipment used to produce the characteristic.

Following GD-OTS review and approval of the initial FAIR, resubmission is required in the event of changes as delineated in QSP-TMP-10.0.1. See the Suppliers/Resources & Quality Clauses section located on the General Dynamics Ordnance and Tactical Systems web page for the QSP-TMP-10.0.1 document.

A FAIR is required for assemblies, sub-assemblies, and detail parts including castings, and forgings. A FAIR is required when modifications to standard catalogue or Commercial-Off-the-Shelf (COTS) items are made. Each item shall have a separate FAI.

Unless contractually required, a FAIR is not required for:

- Development and prototype parts that are not considered as part of the first production run.
- Procured standard catalogue item (COTS). When included in an assembly, they shall be documented in the index of part numbers in an assembly FAIR.
- Raw material.
- Military/industry standard or specification procured from an authorized source.
- Vendor Item Control, Source Control and Procurement Control type drawings because the material is commonly certified to the vendor's part number. For these drawing types, the FAI requirement will be determined by the responsible Quality Engineer. GD-OTS reserves the right to request additional FAI at its discretion.