 Advent Aircraft Systems, Inc		Manual	Subject/Document Name: Supplier Quality	
		Document Number: Q100-002		
Revision: C	Date Originated: 12/10/2013	Originator: Mitch McVey		Page 1
Date Revised: 02/09/2024	Date Effective: 3/04/2024			Copy Number
Approved By		Title: Quality Manager <i>M. A. McVey</i> 3/1/24	Title: Vice President Operations <i>[Signature]</i> 3/1/24	Date
		<i>[Signature]</i> 3/1/24		Date
		Title: President		

RELEASED

MAR 4 2024




SUPPLIER QUALITY

MANUAL

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 2 of 23

Revision Page

Revision Letter	Change Record	Date	Author
A	New Release	12/10/2013	M. McVey
B	Revised manual to reflect new company name	08/24/2015	M. McVey
C	Added counterfeit parts or materials.5.12.4 Conflict minerals usage.5.12.5 Product Safety and ethical behavior 8.16	02/09/2024	M. McCoy

**THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED
"CONTROLLED" BY DOCUMENT CONTROL.**

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.



 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 3 of 23

Table of Contents

Section	Title	Page
	Revision Page	2
	Table of Contents	3
1.0	Purpose and Scope	5
2.0	Applicability	5
3.0	Advent Aircraft Systems Audits, Surveys, and Inspections	5
4.0	Government Representation	6
5.0	Requirements	6
5.1	Quality Program Management	6
5.2	Manufacturing Planning System	7
5.3	Contract Review	8
5.4	Purchase Order Review	8
5.5	Quality Audit	9
5.6	Sub-tier Supplier System	9
5.7	Configuration Verification	9
5.8	Drawing and Specification Control	10
5.9	Tool Control	10
5.10	Calibration of Inspection/Test Equipment	11
5.11	Process	12
5.12	Procurement Requirements	12
5.13	Quality Assurance Procedure	13
5.14	Quality Control	14
5.15	Receiving Inspection	15
5.16	Stock Control	15
5.17	In-Process Inspection	16
5.18	Final Inspection	17
5.19	Final Inspection Identification	17
5.20	Quality Assurance Records	18
5.21	Packing and Shipping	19
5.22	Returned Purchased Material	19
5.23	Nonconforming Parts or Materials	20
5.24	Failure Analysis/Corrective Action	21
5.25	Government/Aircraft Systems Division Actions	22
5.26	Advent Aircraft Systems Furnished Property	22
6.0	Delegated Inspection Duties	23
6.1	Delegation of Duties	23

**THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED
"CONTROLLED" BY DOCUMENT CONTROL.**


The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002		Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 4 of 23	

6.2	Revocation of Inspection Delegation	23
7.0	Methods of Supplier Control	24
7.1	Supplier Control	24
8.0	Supplier Responsibility	25
8.1	Responsibility	25

**THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED
"CONTROLLED" BY DOCUMENT CONTROL.**

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 5 of 23

1 Purpose and Scope

This document establishes the Quality Assurance requirements for suppliers providing parts, services, or raw materials to Advent Aircraft Systems (AAS), as reflected on purchase orders or other contract documentation.

2 Applicability

This document shall contractually apply to suppliers who perform work or supply products to AAS on a purchase order or contract which references the AAS's Supplier Quality Manual. Supplier contracts shall be amended upon renegotiations/renewal or at yearly intervals, whichever comes first to incorporate the most current Supplier Quality Assurance Requirements (SQAR).


- 2.1 In case of a conflict between the contents of this document and any supplier documents, the terms of this document shall apply unless specifically negotiated and accepted in writing by AAS.
- 2.2 If a supplier proceeds without an agreed to understanding of this document, AAS reserves the right to interpret the contents of this document.

3 Aircraft Systems Division Audits, Surveys and Inspections

- 3.1 A supplier Quality Assurance evaluation will be conducted to appraise the supplier's ability to comply with the requirements of this document. Upon completion of this initial evaluation, the supplier will be notified in writing of their acceptability or of any areas of nonconformance. Any documented nonconformances shall be resolved to AAS satisfaction before award of an approved status.
- 3.2 AAS reserves the right to conduct audits, evaluations and inspections of the supplier's Quality Assurance System and products to be furnished to AAS. In addition, AAS reserves the right to conduct audits, evaluations and inspections of supplier's Subcontractors Quality Assurance Systems and products to be supplied to AAS. These audits are in addition to the primary supplier's approved Quality Assurance System and do not relieve the primary supplier of the responsibility to maintain a system for the control of quality products and services from their subcontractors.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc.		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 6 of 23

4 Government Representation

AAS suppliers shall permit access and provide facilities and assistance, as necessary, to government representatives to enable them, initially and periodically, to evaluate supplier's facilities and to review procedural controls, records, process controls and products at all times and places during manufacture for conformance with government regulations and applicable specifications.

5 Requirements

Supplier shall provide and maintain a system for the control of quality and configuration. The Quality System in place at the time of the evaluation or audit approval shall be the system considered acceptable. Suppliers are required to submit subsequent changes of their Quality System (affecting AAS products) to AAS's Quality Assurance for review and concurrence of the change prior to incorporation. Any changes to the system that do not have AAS Quality Assurance acceptance are not considered approved. The system must be documented in the Suppliers Quality Assurance Manual by revision number and/or date of the manual.


The Documented system shall include as a minimum, provisions to address the following:

5.1 Quality Program Management

- 5.1.1 The supplier must establish, document, and maintain a Quality Program that includes identified functions and activities that directly affect quality, and assign specific authority and the responsibility for these functions.
- 5.1.2 The Quality Program shall provide for complete review of contract requirements prior to the award of contract to make timely provisions for the specific controls, processes, test equipment, support and diagnostic software, fixtures, tooling, and skills required for assurance a quality product. Systems, equipment, or skills not available at time of contract shall be documented by the supplier and provided to AAS Quality Assurance with a procurement/implementation schedule. All purchase order amendments shall be subject to the provisions of this subsection.
- 5.1.3 The supplier shall document the Quality Assurance Procedures and provide them to AAS upon request. The document shall include the basis used to create the system.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc.		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 7 of 23

5.1.4 An Organizational Chart that depicts the Quality Organization and its functional relationship to the inspection function and other groups within the supplier's organization shall be part of the quality procedures manual and be available for review. The Quality Organization should have a description of their roles and responsibilities and/or levels of authority.

5.2 Manufacturing Planning System

5.2.1 The supplier shall develop and maintain a Manufacturing Planning System that outlines the requirements in a procedure to produce, process, inspect, and/or test the product or service.


5.2.2 Each Manufacturing Plan shall be organized in a sequence that delineates the manufacturing procedures that will consistently produce and assure conformance to the approved data. This plan is developed to control the manufacture of aircraft products.

5.2.3 The Manufacturing System shall include the following items to form a baseline for the development of the plan or other operations as deemed necessary by AAS:

- A. The approved part number, nomenclature, and engineering revision level.
- B. All materials as specified in the engineering data (design bill of materials).
- C. Serial or lot numbers on required products (based on product type).
- D. Shelf- life dates (based on product type).
- E. Quantity of products.
- F. A sequential listing of all operations utilized to manufacture the product including any subcontracted and controlled operations and special processes. These may be, but not limited to:
 - Heat treating.
 - Shot peening.
 - Preparations, cleanings, coatings, and plating
 - Forming and straightening
 - Bonding, adhesive or composite
 - Nondestructive or other testing
 - Identification
 - Welding, brazing, or soldering
 - Laser cutting

**THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED
"CONTROLLED" BY DOCUMENT CONTROL.**

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc.		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 8 of 23

- G. Receiving inspection, in-process inspection and final inspection operations, and the requirement to include necessary certifications of material and subcontracted processes.
- H. The Supplier's Quality Organization shall review and approve each Manufacturing Plan for all the required quality provisions.

5.3 Contract Review

- 5.3.1 All contracts received from AAS shall be reviewed by the Supplier's Quality Assurance Organization or Designated Representative to assure that all the quality requirements of the contract are addressed and implemented as defined.

5.4 Purchase Order Review

- 5.4.1 Purchase orders issued by the supplier that apply to AAS contracts, shall be reviewed by the Supplier's Quality Organization for the inclusion of the applicable AAS quality requirements.

5.5 Quality Audit


- 5.5.1 The supplier shall establish and maintain a procedure to periodically audit the effectiveness of the Quality Assurance and Configuration Control Systems as they relate to AAS contract requirements.

5.6 Sub-tier Supplier System

- 5.6.1 The supplier is responsible for ensuring that procurements from its subcontractors conform to all requirements of the AAS purchase order or contract. Supplier shall flow down to sub-tier suppliers all requirements in the purchasing documents, including the provisions of this manual.
- 5.6.2 Sub-tier suppliers shall meet all AAS quality requirements; it is the responsibility of the AAS supplier to ensure their sub-tier suppliers are qualified to AAS contract, purchase order and requirements of this manual.
- 5.6.3 The supplier shall have a system for evaluating and maintaining their suppliers' and sub-tiers' performance in terms of quality and shall maintain a system to correct his suppliers'/sub-tiers' unsatisfactory conditions. The system is subject to audit and review by AAS personnel. AAS reserves the right to review, and

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc.		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 9 of 23

disapprove for use, any sub-tier supplier that has been found to be an unacceptable performer by AAS.

5.7 Configuration Verification

- 5.7.1 The supplier shall establish and maintain a system to assure that all end items, including any software incorporated therein, are of the proper configuration, and that all approved configuration changes are incorporated at the specified effective points.
- 5.7.2 A representative of the supplier's Quality Organization shall perform a Compliance Evaluation on units or unit parts. The examination shall determine the product's compliance to applicable design drawings and specifications. Results of the Compliance Evaluation shall be recorded utilizing AS9102 First Article Inspection Forms or equivalent.
- 5.7.3 Compliance or noncompliance shall be properly documented, stamped, or signed by the supplier's Quality Representative. Copies of all documents reflecting the verification compliance will constitute a validation record and shall be maintained on record for a minimum of 10 years in accordance with section 5.21.1 of this manual.

5.8 Drawing and Specification Control

- 5.8.1 The supplier shall have a procedure and designate a responsible organization for distribution to production, inspection areas, and suppliers as appropriate, all current approved specifications, drawings, and changes thereto. The procedure shall provide for the removal or control of obsolete data from points of issue and use.
- 5.8.2 Supplier's Quality Organization must periodically audit this system for compliance and effectiveness.


5.9 Tool Control

- 5.9.1 The supplier shall be responsible for ascertaining the proper application and accuracy of all tooling to accomplish the requirements of the purchase order/contract. Proper application and accuracy of tools shall be verified by valid tooling data and through a first piece inspection to appropriate specifications.

- 5.9.2 Supplier shall maintain a system that is acceptable to AAS Quality Assurance for the periodic inspection of all tooling used as a medium of inspection and/or

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc.		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 10 of 23

control of interchangeability. All tooling used for inspection shall have objective evidence of the supplier's Quality Acceptance.


- 5.9.3 Tools which are due for inspection or found to be discrepant shall not be used for production until the tool has been corrected/inspected and approved for use. If there is an assembly in a tool that is due for inspection or the tool is known to have a discrepancy, the assembly may be completed but that assembly cannot be released for further production unit it has been accurately inspected and accepted by the supplier's Quality Organization.

5.10 Calibration of Inspection/Test Equipment

- 5.10.1 The supplier shall establish and maintain an equipment calibration system that requires all measuring and test equipment used for product or process acceptance, to be calibrated at defined intervals based upon type of equipment, frequency of usage and calibration history of out-of-tolerance conditions. The system shall provide for the control, calibration and recall of all inspection, measuring and test equipment.
- 5.10.2 The system shall provide for the use of equipment of the required degree of accuracy to assure the characteristic being measured is in conformance. (Note: This equates to a minimum of four times more accurate than the measured characteristic's requirement, where possible.)
- 5.10.3 The system must also assure that calibrations are performed in a stable environment and allows for the "soaking" of the equipment in that environment to assure that it is not influenced by any temperature, humidity, vibration, or cleanliness differentials.
- 5.10.4 The calibration system shall also address recall of product in the case of significantly out-of-tolerance measuring equipment found during calibration. This should also include the ability to assess the amount of uncertainty contributed to significantly out-of-tolerance equipment.
- 5.10.5 Calibrations shall be traceable to a nationally or internationally recognized standard such as the National Institute of Standards and Technology. There shall be records of the equipment denoting its status through calibration. The records shall reflect the required tolerances, actual measurements, adjustments, equipment acceptance, and actions taken on out-of-tolerance equipment. The equipment should either reflect the calibration status or be traceable, by a control or serial number, to an acceptable calibration record.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002		Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 11 of 23	

5.11 Processes


- 5.11.1 When processes are specified by contract for the product, it will be the supplier's responsibility to assure the applicable processes are in accordance with required specifications and/or purchase order requirements. These processes, such as: welding, heat treating, plating, chemical coating, precision cleaning, etc., will require certification of the process to the applicable specification(s).
- 5.11.2 Subcontracted processes must be performed by facilities whose capabilities and performance are supported by objective evidence of control. AAS reserves the right of disapproval of those facilities not considered satisfactory.
- 5.11.3 The supplier shall not substitute his own process specification for other specifications without written approval from AAS Engineering. Request for approval shall be coordinated through AAS Purchasing and/or Quality Assurance.
- 5.11.4 The supplier must have a system for controlling all in-house performed special processes to meet the requirements of the applicable drawings and specifications.
- 5.11.5 The supplier must have criteria for personnel qualification as required by the specification.

5.12 Procurement Requirements

- 5.12.1 All AAS approved suppliers are responsible for maintaining a list of their approved suppliers and shall have it available upon request for review by AAS Quality Assurance. Information shall include name, address, nomenclature of parts or services provided, part numbers and other pertinent information.
- 5.12.2 Suppliers shall only purchase aircraft- related parts from suppliers which are controlled by the procuring Supplier's Quality Group by approval or inspection.
- 5.12.3 The supplier shall be responsible for ensuring that the requirements of this Supplier Quality Manual are complied with by all procurement sources utilized in AAS product.
- 5.12.4 Suppliers shall ensure that counterfeit parts or materials are not purchased or used.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc.		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 12 of 23

5.12.5 Suppliers are not allowed to use the following conflict minerals in any materials, items or processes purchased by Advent, including finishing services: Cassiterite, Columbite-tantalite (tantalum), Wolframite, and Gold.

5.13 Quality Assurance Procedures

5.13.1 The supplier shall create and use as a basis of his Quality Assurance System, a set of written procedures that provide for the control of quality and configuration of all AAS products or services. Assemblies, subassemblies, materials, processes, software, testing, etc. produced or conducted within the supplier's facility or procured from any source, shall be governed by these procedures.

- A. The procedures shall provide for methods of approval and/or performance evaluation of subcontractors of parts, materials, or services used in AAS products.
- B. The procedures shall provide for the accomplishment of First Article Inspections and periodic revalidation of those inspections.

5.13.2 Suppliers of products that contain any components that are sensitive to Electrostatic Discharge (ESD) shall establish a procedure to address the manufacturing, handling, packaging, and identification of these end items supplied to AAS.

5.13.3 The supplier shall have a procedural plan to prevent Foreign Object Damage or Debris (FOD) within parts or assemblies. The plan must include a provision to prevent shipping a product to AAS that contains foreign objects.

5.13.4 The supplier shall have a procedure for the identification, recall and timely replacement of products found to be nonconforming.


5.13.5 The supplier shall have a procedure to control inspection acceptance stamps or signatures.

5.13.5.1 The stamp/signature shall be considered the individual's warranty that the inspection or delegated inspection of the product or service conforms to the established approved data.

5.13.5.2 All serialized inspection/acceptance stamps or marks shall be traceable back to the person performing the inspection operation. Stamps shall not be reissued for a minimum of six months after transfer or termination of an inspector.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 13 of 23

5.13.5.3 If signatures are used instead of stamps, a record of the authorized signatures with the person's position must be part of the documented procedures.

5.13.5.4 Records of authorized signatures used on work orders, planning documents, inspection plans, test reports or certifications must be kept on file for seven (7) years.

5.13.6 The supplier's written procedures shall describe the system for the periodic review and incorporation of procedure changes.

5.13.7 The procedure must also address the use of a system of validation of the planning documentation.

5.13.8 The supplier shall also address any other applicable paragraphs of this document.

5.14 Quality Control

5.14.1 All inspections or tests, whether performed on a sample or by statistical methods, must ensure that all products or services supplied to AAS conform to the applicable requirements.

5.14.1.1 Parts or characteristics of parts annotated as 100% inspection must be inspected as required by the applicable sections of the approved engineering data.

5.14.2 In the event that a Sampling Plan is used (where permitted), it must be a zero (0) acceptance type plan that does not allow known discrepancies to be accepted by the lot. Sampling plans used should be in accordance with a plan such as MIL-STD_105 or ANSI/ASQC Z1.A.

5.14.3 Supplier shall perform first article inspection using AS9102 form or equivalent content when one or more of the following conditions exist:


5.14.3.1 Initial part or assembly manufactured on the first contract and/or purchase order.

5.14.3.2 An engineering change affects part configuration, First Article Inspection is required on the modified characteristic(s).

5.14.3.3 Last First Article was rejected; a new First Article is required on nonconforming characteristic(s).

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 14 of 23

- 5.14.3.4 Initial detail or assembly that is manufactured on new or reworked tooling that controls part configuration or when tooling is transferred to another plant or supplier.
- 5.14.3.5 Upon customer or AAS request.
- 5.14.3.6 A lapse in production of two years.
- 5.14.3.7 A natural or man-made event which may adversely affect the manufacturing process.
- 5.14.3.8 A change in numerical control program or translation to another media that can potentially affect form, fit, or function, or
- 5.14.3.9 A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling, or materials, that can potentially affect fit, form or function.

The purchase order may mandate additional First Article Inspection requirements.

5.15 Receiving Inspection


- 5.15.1 The supplier shall be responsible for ensuring all raw materials, parts, assemblies, tests, processes, hardware, and other items purchased from domestic or foreign suppliers conform to procurement requirements. When it is not feasible or practical to inspect upon receipt, the supplier may make provision for source inspection, or utilize a system of supplier control that is AAS approved. Regardless of the method used, the supplier is responsible for the quality and configuration of all procured items.
- 5.15.2 An AAS approved method of evaluation of a domestically located subcontractor should include initial approval and surveillance audits. Along with the evaluation, an acceptable First Article Inspection must be performed, and the documentation assessed to assure the compliance of the product or service. The supplier's procurement must comply with paragraphs 5.7 and 5.13 and the subcontractor's quality performance must be able to be assessed.

5.16 Stock Control

- 5.16.1 The supplier shall provide for control of products and material stored for use in AAS parts and/or assemblies. Methods must address such items as identification of materials, methods of issue, age and/or obsolescence control, traceability, and product recall.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 15 of 23

5.16.2 When an item, supplied to AAS, contains software that is or will be an integral part of any end item, copies of master software documentation and actual code must be properly identified, and maintained in a minimum of two independent and protected storage areas.

5.17 In-Process Inspection

5.17.1 First Article Inspection is required from a supplier either initially producing a product or implementing a configuration change on an AAS or supplier designed product. Changes to engineering or tooling which affect fit, form, function, interchangeability, safety, strength, performance, flight characteristics, weight, balance, service life or installation of the next assembly shall require a first article inspection for those changes.

5.17.2 One copy of the design drawing and all data pertaining to the first article inspection, shall accompany the first article delivered to AAS. If the design drawing does not provide sufficient data to distinctly verify the configuration of incorporated software (identification number and version or modification), then the supplier shall also deliver nameplate or other drawings as necessary to enable verification of software configuration by AAS Receiving Inspection.


5.17.3 First Article Inspection required data shall consist of, but not be limited to, the following:

- 5.17.3.1 Material verification of type and condition.
- 5.17.3.2 All dimensional and angular characteristics including actual dimensions versus engineering dimensional callouts and tolerances. If a part has UN-dimensioned media (Mylar, electronic), the media used shall be recorded without dimensions.
- 5.17.3.3 Processes, NDT.
- 5.17.3.4 Hardness/conductivity test results.
- 5.17.3.5 Finish Characteristics.
- 5.17.3.6 Structural and functional tests to verify conformity to requirements.
- 5.17.3.7 Assembly of the product.

5.17.4 All items manufactured to supplier's design will be subject to First Article Inspection as noted above, when the changes affect AAS product.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc.		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 16 of 23

5.17.5 Each product/lot shall be inspected at appropriate points during manufacture. These points shall be designated on the manufacturing plan and are to reflect approval by the supplier's Quality Organization.

5.18 Final Inspection

5.18.1 Upon Completion, all products shall be inspected and/or tested to the extent required to verify conformance to the engineering data and the contractual requirements. This is to be performed by an authorized representative of the supplier's Quality Organization.

5.19 Final Inspection Identification

5.19.1 Prior to delivery, the supplier shall identify the product which has been inspected and accepted, by stamping or other acceptable method of marking as is delineated in the engineering data. Whenever practical, the inspection acceptance marks should be located near the part number. Parts shall be legibly identified as delineated in the contract requirements with a minimum of the AAS and/or Supplier part number as applicable; lot or serial number if required; and date of manufacture.

5.19.2 Final identification shall be to the engineering data and contractual requirements.

5.20 Quality Assurance Records


5.20.1 The supplier shall maintain records of all inspections and tests for a minimum of ten (10) years. These records shall be available to AAS upon request and shall include but are not limited to such items as: Receiving/Receiving Inspection, First Article Inspections, In-Process and Final Inspection results, Traceability and Serialization, Calibrations, completed Manufacturing Plans, actual Material Test Reports, Process Certifications, actual test data of all qualification, functional, interchangeability and acceptance test performed, and any other applicable inspection documents. Records of serialization and traceability shall be maintained for a minimum of ten (10) years.

5.20.2 Computer Generated or Stored Records

5.20.2.1 A supplier's use of computer generated and stored records shall require a system that will detect and deter unauthorized disclosure,

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 17 of 23

modification, or use of the records and protect the accuracy of the data entered throughout the required record retention storage period.

5.20.2.2 There shall be a method to review data prior to computerized entry to ensure the integrity and accuracy of the information and provide for objective evidence that the review has been accomplished.

5.20.2.3 A method shall be established to provide for backup of the required system data, protection against data destruction and storage of the primary and back-up data, as well as a contingency plan for disaster recovery. The storage method must provide for protection against physical hazards such as fire, water, and magnetic influences.

5.20.3 The supplier shall maintain all software-related development, design, or test documents, as well as records of all changes made to the software code and/or the specified documents, for the service life on an end item. The supplier shall establish a system for assuring software configuration traceability with respect to each end item delivered to AAS.

5.20.4 The supplier shall have a system for maintaining serial number traceability of parts, components, or assemblies requiring serialization or that are used in the manufacture of the end item. *NOTE: A serial number shall be unique to a part and shall not be reassigned for any reason. Parts which are manufactured as replacements, shall not bear the same serial number of the part being replaced regardless of the reason for replacement. All pertinent number/letters used to make the serialization unique, must be identified on the product.*


5.21 Packaging and Shipping

5.21.1 The supplier shall maintain a system that assures adequate quality of the packaging and shipping phase of the program. The use of commercial packaging practices does not relieve the supplier of the responsibility for properly controlling the packaging and shipping function in a manner which will prevent damage in transit and in handling.

5.21.2 The supplier shall include with shipment of end items, adequate documentation and/or drawings to enable verification of exact configuration of those end items (including the configuration of any software incorporated therein) by AAS's

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 18 of 23

Receiving Inspection. All documentation shall be accurate and legible. Failure to comply with this section may result in rejection of the shipment.

5.22 Returned Purchased Material

- 5.22.1 When AAS returns material to a supplier for failure to comply with contractual requirements, the supplier will be notified by a Rejection Notice.
- 5.22.2 In the event a supplier does not accept the responsibility for a nonconforming condition, the supplier shall immediately initiate a letter of exception advising the AAS Quality Manager that the exception is being taken to the rejection. The letter shall make full reference to all applicable documents and shall be specific in defining the reason for the exception.
- 5.22.3 All supplier shipping documents shall reference the AAS CPAR number and indicate the product or material is being returned as reworked, repaired, replaced, or functionally tested and serviceable.
- 5.22.4 A supplier shall not return previously rejected material to AAS as “Returned as Received” or “No Cause for Rejection” without written authorization from AAS Purchasing and Quality Assurance. In all cases when returning material as “Returned as Received,” a statement is required on the shipping document defining why the material is being returned as received. A copy of the AAS authorization shall accompany the shipping document.
- 5.22.5 For each component repaired per Purchase Order/Rejection Notice, the Supplier shall provide a certification and repair report listing work performed, parts replaced and test results.


5.23 Nonconforming Parts or Materials

- 5.23.1 All nonconforming parts and/or materials shall have a completed rejection tag attached to the parts or material and placed in the supplier’s bond area.
- 5.23.2 Any non-conformances that escape the supplier’s quality system requires notification of AAS Quality Assurance and Purchasing. This notification shall be completed in a timely manner and shall include:

- 5.23.2.1 Part Number/Name
- 5.23.2.2 Quantity of the Parts
- 5.23.2.3 Units affected.
- 5.23.2.4 Discrepancy

**THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED
“CONTROLLED” BY DOCUMENT CONTROL.**

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 19 of 23

- 5.23.2.5 Investigation of cause/root cause
- 5.23.2.6 Corrective Actions – immediate and long term
- 5.23.2.7 Supplier engineering evaluation – where applicable

5.23.3 Preliminary review of nonconforming parts or material shall be performed by the supplier’s Quality Organization and shall result in one of the following dispositions:

- 5.23.3.1 Rework: Products that can be reworked to specification or drawing requirements shall be reworked.
- 5.23.3.2 Scrap: When the product or material is unfit for use.
- 5.23.3.3 Disposition in accordance with AAS Engineering instructions.

5.23.4 If nonconforming supplier products or materials are detected at any AAS facility, a formal rejection will be generated noting the discrepancy and disposition. If it is determined that the nonconformance is the supplier’s responsibility, then all warranty limitations will no longer apply, and the product or material may be returned to the supplier.

5.23.5 AAS reserves the right to reject all nonconforming products or materials from a supplier. AAS is not obligated to inspect or sort nonconforming supplier products or material rejected by lot sampling. Rejected lots will be returned at the supplier’s expense for a satisfactory inspection and sorting.


5.24 Failure Analysis/Corrective Action

5.24.1 The supplier’s Quality Organization shall provide for a failure analysis and corrective action program for all design, tooling test equipment, manufacturing and test operations supplied to AAS. Each type of nonconformance shall be documented, investigated, and the appropriate corrective action implemented.

- 5.24.1.1 The supplier shall have a method for positive identification, recall, and replacement of parts in the event of a nonconformance.
- 5.24.1.2 Corrective Action items to be addressed.
- 5.24.1.3 The discrepancy, part numbers(s), part name, serial numbers
- 5.24.1.4 Cause of the discrepancy
- 5.24.1.5 Root cause analysis
- 5.24.1.6 Any interim fixes to the system or product to assure conforming products.
- 5.24.1.7 Extent of the discrepancy, with justification

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED “CONTROLLED” BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 20 of 23

5.24.1.8 The final system or product changes that were implemented to prevent re-occurrence.

5.24.2 To maintain effective control of quality throughout all phases of the program, the supplier shall be responsible for performing analysis of rejection data forwarded by AAS Quality Assurance via the AAS Quality Assurance initiated correspondence. Failure to respond in writing to each correspondence within the prescribed time period will have a direct impact on the supplier's overall quality standing.

5.25 Government/Advent Aircraft Systems Actions

5.25.1 AAS reserves the right to inspect all products at their point of origin. AAS inspection will not replace the supplier's inspection duties, nor will it relieve the supplier of his responsibility to furnish an acceptable, conforming end item.

5.25.2 AAS suppliers are subject to visits by Government representatives. Product audits may be conducted during these visits to ensure the products produced are safe and meet the design requirements. Any information that is gathered during these visits might be used to determine if AAS Supplier control system is functioning as required.

5.26 Advent Aircraft Systems n Furnished Property


5.26.1 When material is supplied by AAS to be used in conjunction with or to be included in products to be supplied to AAS, the supplier's internal procedures and practice shall include the following:

- 5.26.1.1 Examination of AAS furnished material upon receipt for shipping or handling damage.
- 5.26.1.2 Conformance of inspection to applicable drawings and specifications upon receipt.
- 5.26.1.3 Functional testing, when applicable to determine satisfactory operation.
- 5.26.1.4 Periodic inspection to assure adequate storage conditions and material preservation.
- 5.26.1.5 Provisions for scrap, return, or forwarding of unused or unusable material.

5.26.2 Damaged or discrepant AAS furnished property shall be identified with a rejection tag and placed in a restricted area. The AAS Quality Manager shall be notified immediately.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 21 of 23

5.26.3 Damage or discrepancies not identified at the time of receipt shall be the supplier's responsibility.

6 Delegated Inspection Duties

6.1 Delegation of Duties

6.1.1 AAS may formally delegate inspection duties to specific approved suppliers of AAS designed products.

6.1.2 This delegation of inspection duties shall not constitute a final acceptance by AAS nor shall it in any way relieve the supplier of his obligations under the purchase order or contract. The supplier maintains responsibility to furnish acceptable material that is in conformance with applicable drawings and specifications whether produced by the supplier or their subcontractor.

6.2 Revocation of Inspection Delegation

6.2.1 AAS reserves the right to rescind the delegation of inspection duties as deemed necessary by AAS's Quality Assurance. AAS reserves the right to disapprove subcontractors of delegated suppliers when their performance is considered unsatisfactory to AAS.

7 Methods of Supplier Control

7.1 Supplier Control

7.1.1 In order to fulfill the responsibility with regard to the ultimate conformity and condition for safe operation of each completed component, AAS shall exercise supplier control by one or a combination of the following methods.

7.1.1.1 Initial and periodic evaluations or audits of the supplier's Quality Assurance systems data or product.

7.1.1.2 Delegation of inspection duties.


7.1.1.3 AAS source inspections.

7.1.1.4 In-house inspection and/or functional test.

7.1.1.5 Certified test reports.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 22 of 23

7.1.1.6 Performance Data.

7.1.2 Suppliers under the AAS’s Supplier Control System shall be designated as “Approved”, “Conditional” or “Unapproved.”

Approved – allows the supplier to perform the actions/processes for which they are approved.

Conditional – indicates that minor deficiencies were noted and will be corrected within a mutually agreed upon time frame.

Unapproved – denotes major deficiencies in the supplier’s Quality System. An “Unapproved” status shall be retained until formal submittal of corrective actions has been approved and a satisfactory follow-up evaluation conducted.

A. Suppliers that become “Unapproved” shall be disqualified to perform work for AAS. All formal corrective actions must be received and approved before a re-evaluation will be considered.

8 Supplier Responsibility

8.1 Responsibility

8.1.1 AAS suppliers are responsible for ensuring that both they and their sub-tier suppliers are in compliance with the applicable requirements of this specification.

8.1.2 AAS’s Quality Assurance shall be notified of any changes to the suppliers’ facility including:

8.1.2.1 Change in physical location.

8.1.2.2 Change in management personnel within the Quality Organization.

8.1.2.3 Changes in the Quality System that affect processing/producing AAS products or services.


8.1.2.4 Change in ownership that affect the Quality Systems

8.1.3 AAS’s suppliers shall notify in writing of all changes that affect their business relationship.

8.1.4 If AAS changes a supplier’s status to “Unapproved,” all direct or indirect business relationships with AAS will be considered terminated.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED “CONTROLLED” BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.

 Advent Aircraft Systems, Inc		Manual Document Number: Q100-002	Subject/Document Name: Supplier Quality	
Revision: C	Date Revised: 02/09/2024	Date Effective:	Originator: Mitch McVey	Page 23 of 23

- 8.1.5 If a supplier's status with any other prime aerospace contractor changes to anything less than "Approved" the supplier is required to notify AAS's Quality Assurance manager within ten (10) days of that change.
- 8.1.6 Supplier will ensure that suppliers personnel are aware of their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.

THIS DOCUMENT SHALL BE CONSIDERED UNCONTROLLED WHEN PRINTED UNLESS PROPERLY STAMPED "CONTROLLED" BY DOCUMENT CONTROL.

The information contained in or disclosed by this document is considered proprietary to Advent Aircraft Systems, Inc. This document and the items and information contained or disclosed within shall not be used, copied, or reproduced in whole or in part, nor shall the contents be revealed in any manner to any person unless written permission is obtained from Advent Aircraft Systems, Inc.