



# **Supplier Quality Requirements Manual SQRM**

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Revision Table

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B	Added the Quality Policy	10/16/18	Antonia Pardino
C	Changed paragraph 5 on page 4 on time delivery to 95%	11/12/18	Antonia Pardino
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## Quality Policy

Direct AeroSystems, Inc. will strive to continuously improve the effectiveness of our quality system in order to consistently provide products and services that meet or exceed customer requirements. The success of our business is based on the partnerships with our customers and suppliers.

## Scope

This Supplier Quality Requirements Manual is the Supplier's guide to understanding of Direct AeroSystems requirements and expectations not cover on the purchase order, supplier's acceptance of the purchase order agrees to the requirements of this document, in the event of any inconsistencies between the purchase order and the requirements of this document, the terms and conditions of the purchase order take precedence. This document applies to Direct AeroSystems supplier's and all members of their supply chain who furnish product, material, processes and services.

## Quality System Requirements

1. To be put on Direct AeroSystems, Inc. Approved Supplier List, the supplier shall complete the Direct AeroSystems Supplier Survey FM 7.4.1-01 and provide any other requested documentations or 3<sup>rd</sup> party certifications. The Supplier Survey and all documents will be submitted to Direct AeroSystems buyer for further evaluation.
2. The supplier shall have in place and maintain a quality management system that meets or exceeds the Quality System Standard listed in Table 1. The supplier will ensure that their personnel are aware of their contribution to product or service conformity, to product safety and the importance of ethical behavior. In case that supplier does not meet the Quality System Requirements Direct AeroSystems, Inc. may choose to use supplier based on a Direct AeroSystems Supplier Evaluation Procedure

**Table 1**

Quality System Level	Applicable Minimum Quality System Document	Supplier Description
Subcontractor	AS9100	Manufacturer with design authority (Major Assemblies, Sources/Spec. Control Product); Engineering Services with design/release authority; Manufacturer (Build-to-Print)
Processors	Nadcap or AS9100. Special Processors that do not meet the minimum QMS requirement must be approved by Direct AeroSystems Supplier Evaluation Procedure	Processor (Chem film, Heat Treat, Paint, etc.)
Raw Material and Hardware Distributor	AS9120, AS9100 or ISO9001	Distributors
Production Tooling	AS9100 or ISO9001	Tooling with design authority/Tooling (Build to print), directly relates to product conformity
Support Equipment	N/A	Tooling that does not affect product conformity
Quality Services	ISO17025 or ANSI Z540 for calibration; Internal QMS for (inspection services)	Calibration/Inspection Services, etc. (e.g. CMM)
Chemical/Material Testing	ISO10012-1, ISO17025 or ANSI Z540 (as applicable)	Laboratories
Chemical, Paint, Solution, and Instrument Distributor	Internal QMS	Distributors

3. Direct AeroSystems, Inc. requires 3rd party certifications, suppliers shall make available a copy of their certifications. Any changes to the certifications such as change of the registrar, certification update, withdrawal or disapproval the supplier must notify Direct AeroSystems, Inc. immediately.
4. Supplier shall notify Direct AeroSystems, Inc. immediately if any suppliers name change, changes in ownership, changes in senior quality management, changes in products, processes, or services, including changes of your external providers or location of manufacture, and obtain Direct AeroSystems, Inc. approval, changes of location and suppliers Quality System to reevaluation by Direct AeroSystems, Inc.

5. Suppliers shall maintain satisfactory performance to remain on Direct AeroSystems, Inc. Approved Supplier List, supplier performance would be reviewed based on two objectives, on time delivery (min 95%) and rejection rate (1% or less). If supplier fails to consistently meet these objectives a corrective action (SCAR) will be issued. If a SCAR is not completed and accepted by quality or the corrective action is not effective, the supplier may be downgraded to probationary status. Failure while on probationary status will result in the supplier being removed from Directs AeroSystems, Inc. Approved Supplier List.

## **Access**

Supplier shall grant Direct AeroSystems, Inc. or customers of Direct AeroSystems, Inc. access to supplier's facilities. This includes the freedom to access all documents/records and conduct audit during fabrication, inspection, storage of any product sold to Direct AeroSystems, Inc. Direct AeroSystems, Inc. will provide advance notice to the supplier (typically 48 to 72 hours minimum). If this Purchase Order is a subcontract under a government prime contract or FAA approved designed data, Supplier agrees that its books, records, and its facilities, engaged in the performance of this Purchase Order, shall at all reasonable times be subject to inspection and audit by any authorized representative of the applicable Department of United States Government.

## **Records**

Quality records, job routers, work orders, material, and process certifications that are created and/or retained by the Supplier must be complete, legible, identifiable, adequately protected (e.g., from loss of confidentiality, improper use, or loss of integrity), properly stored and preserved, controlled from changes (e.g., version control), prevent unintended use of obsolete documented information to the corresponding product. These records shall be retained for a minimum period of 10 years or as specified by Customer retention requirements. Records shall be readily available for review by Direct AeroSystems, its customers, and government regulatory agencies.

## **Counterfeit Parts Prevention**

Direct AeroSystems, Inc. suppliers shall put into place a process to avoid, detect, mitigate and disposition of counterfeit parts and materials. Suppliers should utilize and reference AS6174 and/or AS5553 for guidance, supplier shall also flow down counterfeit parts process requirements to their sub-tiers, especially but not limited to:

- 1) Electronic Parts Suppliers
- 2) Raw Material Suppliers
- 3) Distributors of Hardware
- 4) Manufacturers

## **Foreign Object Damage Controls**

Supplier shall maintain a Foreign Object Damage prevention program, Supplier shall provide records of such self-assessment and training records upon Direct AeroSystems, Inc. request.

## Nonconforming Material Control

The Supplier shall maintain an effective system for controlling nonconforming materials and components including procedures for identification, segregation, documentation, evaluation, and disposition to prevent its unintended release or use.

When a nonconforming product is discovered at the Supplier's facility, and it requires an engineering review/disposition, the Supplier shall submit a Nonconforming Material report to the Direct AeroSystems, Inc. buyer. If nonconforming product is reported to Direct AeroSystems, Inc. supply chain, by the customer or Direct AeroSystems, Inc. Quality department, and it is determined to be the responsibility of the supplier, supplier would be immediately notified of the nonconforming for immediate containment and evaluation of all such product at the supplier's facility, if requested by Direct AeroSystems, Inc. the supplier shall provide a Root Cause and a Corrective Action for the nonconforming product.

## Disposition Authority

Supplier disposition authority for non-conforming product is limited to: Rework, Return-to-Vendor, and Scrap. The Supplier shall notify the Buyer in writing immediately if disposition actions taken, have an effect on the ability of the Supplier to deliver product as specified or agreed upon.

**Rework** – A process applied to a nonconformance, entirely within the confines of the drawing specifications that will completely eliminate it and result in a characteristic that conforms completely to the drawings, specifications, and contract requirements.

**Return to Supplier** – Return of subcontractor product found to be discrepant for subsequent rework or replacement.

**Scrap** – Permanent removal from production and timely destruction of product found to be unfit for use. Scrapped product shall be conspicuously and permanently marked until destroyed.

## Notice of Escapement

The Supplier shall notify the Buyer, within 24 hours of discovery, of any non-conforming product shipped (escapement) and/or any changes in product or process definition.

In the event of an escapement, the Supplier shall send a "Notification of Escapement" in writing to the Direct AeroSystems, Inc. buyer and quality department.

## Supplier Corrective Action

Responses for corrective action will be directed to the Supplier's Quality Representative. Unless otherwise defined in other applicable flow-down documents, Suppliers are required to respond, within 30 calendar days, to all formal requests for cause and corrective action unless otherwise noted on individual requests for C/A, Corrective action extensions must be requested in writing. Responses

shall be on the Supplier's form or Direct AeroSystems corrective action tag.

## **First Article Inspection (FAI)**

The purpose of Supplier's FAI is to ensure that all design features of a deliverable product and its sub components meet all applicable levels of design drawing, material and process specification requirements. The Supplier shall perform FAI's to the requirements of AS9102. If an FAI is required per the purchase order, it shall be sent with the product(s) during shipment to Direct AeroSystems, Inc.

The FAI shall include the following supporting documentation:

- 1) Balloon drawing
- 2) Material Certifications
- 3) Process Certifications
- 4) Special Manufacturing Instructions
- 5) CMM Reports if available

## **Non-Destructive Test (NDT)**

Supplier shall review the Purchase Order and associated drawings to determine if NDT is required. If submittal of NDT general procedures and/or part-specific techniques are required, then it shall be stated on the Purchase Order. Direct AeroSystems, Inc. Customer's guidelines procedure for minimum content of general procedures/techniques are provided on the Purchase Order.

## **Machined Part Suppliers, Sheet Metal Suppliers, Composite/Non-metallic Parts Suppliers, Casting & Forging Suppliers, and Raw Material Manufacturers.**

Supplier shall provide the raw material certification, which was provided by the original mill. Mill certifications shall include conformance with the applicable material specification as noted on Direct AeroSystems, Inc. purchase order, material description, alloy and condition, physical properties, chemical analysis, and heat lot number. If the raw material was purchased from a distributor, include the distributor's certificate of conformance along with the mill certification (Recertification by any means other than by the original mill is not authorized). Castings and forgings procured in support of Direct AeroSystems, Inc. purchases of machined parts must have documented evidence of Direct AeroSystems, Inc. Customer qualification acceptance prior to production. All chemical analysis and physical test certifications shall also be provided for castings and forgings.

## **Suppliers of Age-Sensitive Materials**

Supplier shall provide original manufacturing/cure date, lot number(s), expiration date or length of shelf life (if indefinite so state), and any special storage/handling instructions. Note: For age-sensitive rubber products, Supplier's expiration date or length of shelf life data is not required if the cure date and applicable specification number are stamped on the deliverable hardware. Supplier is responsible

to determine if acceptance test report submittal is required in accordance with applicable material specification.

## **Distributors of Standard Parts/Hardware/Raw Materials**

Direct AeroSystems, Inc. does not accept raw materials from pass through distributors that have not been procured directly from the manufacturer, unless certified copies from the original mill are available. Purchases of recertified raw material or raw material that has departed from direct control of the manufacturer is prohibited. Direct AeroSystems, Inc. does not accept standard hardware or any other items through pass through distributors unless they are procured directly from the manufacturer or a copy of the original manufacturer certification/test report is provided. In addition, hardware or other items that have been altered by a pass-through distributor will not be accepted by Direct AeroSystems, Inc. Distributors shall ensure that standard parts/hardware/material is marked in accordance with specification requirements Original mill marking shall be affixed and legible on raw materials and shall not show signs of tampering or altering.

## **Assemblies/Sub-Assemblies**

All Assemblies/Sub-Assemblies deliveries must be accompanied with legible Certificate of Compliance (C of C) and FAI if required per purchase order with each kit. The supplier must certify that all material/parts have been processed, inspected, and tested in accordance with the purchase order, engineering requirements or special customer requirements. The supporting data must be included with shipment to Direct AeroSystems, Inc.

## **Packaging and Delivery Documentation**

When a packaging specification or direction is not provided by the engineering drawings, specifications or Purchase Order, the packaging shall be in accordance with ASTM-D3951 standard practice for commercial packing. Supplier shall provide a packing sheet for each separate shipment that includes as minimum of the following requirements:

### **Special Documentation Required:**

- 1) Packing Sheet
- 2) Certificate of Conformance (C of C)
- 3) First Article Inspection (FAI) if required per purchase order
- 4) Material Certs

### **Packing Sheet Minimum Requirements:**

- Supplier Name and Address
- Buyers purchase order and line item
- Part number and Revision number if applicable
- Quantity

### **Certificate of Conformance Minimum Requirements:**

- Supplier Name and Address
- Buyers purchase order and line item
- Part number and Revision number if applicable
- Quantity
- A certification statement that meets the intent of the following: "(Supplier) certifies that these parts were purchased, and/or manufactured, and/or processed, and/or assembled, and inspected and meets all applicable OEM



customer and Buyer requirements.”

- An authorized Quality Assurance signature and date.
- Special serial number or lot number assigned by supplier for traceability.

## Trade Compliance

Direct AeroSystems, Inc. is dedicated to being fully compliant with all applicable government and regulatory agency rules and regulations governing the sale and shipment of our products in the markets where we conduct business. Following is one of the areas you will be asked to provide specifics so Direct AeroSystems can be guided accordingly:

➤ **ITAR – International Traffic in Arms Regulations**

Direct AeroSystems, Inc. expects Suppliers to identify and timely inform Direct AeroSystems, Inc. of all products meeting the definition of “defense articles” as that term is defined in 22 CFR § 120.6 of the International Traffic in Arms Regulations. In addition, Direct AeroSystems, Inc. expects Suppliers who engage in the US in the business of manufacturing or exporting defense articles or furnishing defense services to be registered and keep their registration current with the US Department of State.