

SUPPLIER QUALITY FLOWDOWN	SQ-001
OWNER: QUALITY	REVISION: 20260720
REVIEW CYCLE: 8 YEARS	EFFECTIVE DATE: 20260720

1. GENERAL SUPPLIER REQUIREMENTS

The requirements stated below marked with an * shall apply to all subcontractors of the material(s) and processing services furnished to Primary Aimline Purchase Orders. The Q- Clauses identify requirements which apply only when noted on the individual purchase order. All material supplied or processed shall conform to the latest revision level of the applicable specification unless the Purchase Order instructs otherwise. These General Supplier Requirements are applicable for all purchase orders.

The supplier is responsible for flowing down to sub-tier suppliers all applicable requirements in the purchasing documents, including key characteristics where required. Purchase Order requirements shall take precedence over the requirements stated herein, should a conflict occur. Refer any questions regarding requirements or other issues to your Primary Aimline buyer. Primary Aimline must be notified immediately when a change occurs in Quality Management or in manufacturing location.

The supplier shall maintain the ability to provide evidence of commodity and item level traceability to ensure tracking of the supply chain back to the manufacturer of all <MATERIAL> being delivered per this order. This traceability record shall clearly identify the name and location of all the supply chain intermediaries from the manufacturer to the direct source of the materiel for the seller and shall include the manufacturer's commodity or item level identification for the item(s) such as date codes, lot codes, heat codes, serializations, unique item identifiers, or batch identifications. The supplier shall provide Primary Aimline with any requested documentation related to Primary Aimline product.

Primary Aimline reserves the right of access, which extends to their customer, and regulatory authorities, to all facilities, at any level of the supply chain, involved in the order and to all applicable records.

Part Preservation and Damage: All parts subject to corrosion or impact shipped to Primary Aimline shall be properly protected to minimize the associated risk of damage and corrosion during processing, storage, and transfer to Primary Aimline.

Shelf-Life Components: All shelf-life components shall have 75% of their usable shelf-life capacity remaining when shipped to Primary Aimline. All shelf-life components must follow manufacturers handling and packaging requirements for storage including environmental controls. The expiration or cure date must be included on all components. Exclusions apply to components identified as "Unlimited" shelf-life; Primary Aimline limits all shelf-life at 20yrs maximum unless otherwise specified by the manufacturer.



* DRAWING CONTROL:

When product design is the responsibility of the Primary Aimline supplier, the supplier shall implement no changes in design, materials, processes, or control without prior written approval, via Primary Aimline buyer, from the cognizant Primary Aimline Quality and Design Engineering representatives. The Primary Aimline supplier is further responsible for compliance by their sub-tier subcontractors to the above stipulations.

* SPECIAL PROCESS REQUIREMENTS:

Processes such as, but not limited to, welding, heat treatment, electroplating, and nondestructive testing shall be performed solely by NADCAP approved processors. For names of approved sources, contact your Primary Aimline buyer. Certifications for special processes must accompany each shipment.

* CERTIFICATIONS AND REPORTS:

All certifications and reports must bear the following: date, name, title, and signature of authorized company representative. References shall be made to purchase order number, line number, part number, revision, and quantity.

* CERTIFICATIONS:

All certifications shall accompany shipments boxed with the product, preferably in envelope marked "CERTIFICATIONS".

* RECORDS:

Certifications for purchase orders shall be maintained for a minimum of 7 years by the supplier.

*SUBCONTRACTOR'S INFORMATION:

Suppliers requesting additional information or clarifications may contact their Primary Aimline buyer for assistance and written response.

2. Q-CLAUSES

Q-01 FIRST PIECE INSPECTION: The first piece produced shall be submitted to Primary Aimline for Quality approval prior to the production run.

Q-02 PRIMARY AIMLINE SOURCE INSPECTION: PO Line Items that flow down Q-NOTE Q-02 are required to coordinate source inspection at the subcontractor's facility by a Primary Aimline Quality Representative prior to outside processing (preferred) or prior to shipment. Call your buyer to arrange for an inspection. At the Quality Representatives option, they may waive source inspection.

Q-03 FIRST ARTICLE INSPECTION (FAI) /REPORTS: The subcontractor shall perform a first article inspection. One part shall be inspected when the part is made the first time, when the manufacturing method is changed, or when the print revision is changed. The first article part shall be clearly identified with the words "first article". The first article report shall list all characteristics, including basic dimensions, notes, tolerance limits dimensions, material requirements, and shall remain on file for audit or submittal when called for. First Article Inspection reports are required for all production detail parts and assemblies. FAIs are to be performed according to the latest revision of AS9102. A production part is one of the first group of one or more parts that are the result of a planned process designed to be used for future production of these same parts. This process shall be repeated when changes occur that invalidate the original results. (e.g., engineering changes, manufacturing process changes, tooling changes).

Q-04 CERTIFICATION OF CONFORMANCE (C OF C): The subcontractor shall submit with each shipment a legible, typed or printed, reproducible certified statement (C of C) that the items listed thereon comply fully with all purchase order requirements. The "C of C" shall bear authorized company signature with title, date, purchase order number, line-item number, supplier's traceability number, part number, revision and quantity.

Q-05 FUNCTIONAL TEST REPORTS: The subcontractor shall submit, with each shipment, a report listing actual test results, identifiable to the respective products.

Q-06 MATERIAL CERTIFICATION (NON-METALS, COMMERCIAL, PROPRIETARY): Material certifications shall be submitted with each shipment. The certification shall bear description of material, trade name, manufacturer's name, specification number (type, grade, etc.) manufacturers part number, batch and heat or lot number, if applicable.

Q-07 CHEMICAL AND PHYSICAL MATERIAL TEST REPORT: Chemical and physical material test reports shall be submitted for each shipment and include the following:

- (1) Batch, heat or lot number
- (2) The specification & revision the material was produced too. (Ferrous metals require specific values of composition).
- (3) Chemical and Physical analysis with certification statement must accompany all certifications.

NOTES- Documents must be legible and have no obscurities to any information including chain of custody.

*** In cases where raw material is purchased to be processed further, the processor who brings the material into full compliance will have the mechanical properties tested to ensure compliance to requirements.

Q-08 SPECIAL PROCESSES: Aerospace grade special process requirements apply to this part. Certification reports from the processor(s) identifiable to the materials delivered are required for each process or nondestructive test performed. Reports shall include the following:

- (1) Processes performed/ Method/ Type/ Class
- (2) Specification/drawing and revision level
- (3) Purchase order number
- 4) Part number
- (5) Compliance to required acceptance criteria
- (6) Ultrasonic scan plans if applicable
- (7) Radiographic x-rays if applicable

Materials processed must be certified in accordance with the applicable specification. Suppliers shall flow down sufficient information to ensure sub tier vendors/processors are able to correctly process all parts. All plating must show baking times or durations, temperatures, and if materials were processed within the proper time period. Heat Treat certification must show final hardness obtained. NDT must certify acceptance criteria. Note: NDT personnel shall be certified level II or above.

Q-09 MATERIAL/PROCESS SAMPLES: A representative material test sample for all special processes is required with completed parts.

Q-10 UNIQUE HEAT-LOT CONTROL: Only one heat lot of material is to be used in the production of any individual detail. Materials to be segregated by heat-lot, packaged separately, and not commingled.

Q-11 STATISTICAL PROCESS CONTROL: A Primary Aimline Quality approved SPC program is required. Control charts are required with each shipment.

Q-12 TRACEABILITY OF PRIMARY AIMLINE FURNISHED MATERIALS: Only the material furnished may be used to satisfy this order. Material substitution is prohibited. Primary Aimline assigned lot numbers and serial numbers when applicable shall be maintained and referenced on all documentation as applicable. Materials drop shipped to suppliers will be verified by certification prior to use.

Q-13 AGE CONTROLLED MATERIALS: Age sensitive materials shall conform to applicable specifications and the following shall be identified on each container: a) Manufacturer's name b) Batch number c) Storage temperature d) Compound/spec. number e) Date of manufacture f) Shelf-life requirement

Q-14 MANNED SPACE FLIGHT: Materials, manufacturing and workmanship are to be of the highest standards to ensure astronaut safety. If you are not able to supply items of a quality higher than the items specified, please notify your buyer.

Q-15 SUBCONTRACTOR CATALOG/SPECIFICATION: Subcontractor shall submit a copy of the actual catalog pages and/or manufacturer's specification that furnishes all required information applicable to the purchased items.

Q-16 PRIMARY AIMLINE CUSTOMER APPROVED SOURCES: Primary Aimline's customer requires all processes be performed by their approved sources. The purchase order will state the customer whose approved sources must be used and provide information on how to find the listing of approved sources. Contact your buyer if you do not have a listing of approved sources. Certifications will list Primary Aimline's customer's specifications.

Q-17 DIMENSIONAL INSPECTION REPORTS: A dimensional inspection report is required for all lots shipped to Primary Aimline and shall be retained and made available upon request. All certified Suppliers must submit Inspection Reports for each "Lot(s)" produced.

Sampling Plan shall be C = 0 unless otherwise specified. The lot shall be rejected if a nonconformance is discovered in the sample. If a nonconformance is found in the sample, inspect all pieces in the lot for the nonconformance, remove all nonconforming pieces from the lot. Sampling inspection is not permitted for characteristics affected by rework and rework Material Review Board dispositions.

Characteristic Requirements for Sampling Determinations (Unless Otherwise Specified)

REQUIREMENT	INDEX VALUE	CHARACTERISTIC TYPE
Visual inspection	100%	CR
Dimension or geometrical total tolerance range less than or equal to .0005	100%	CR
Dimension or geometrical total tolerance range greater than .0005 and less than or equal to .005	1.0	MA
Dimensional or geometrical total tolerance range greater than .005	4.0	MI
Angle total tolerance less than or equal to 1 degree	1.0	MA
Angle total tolerance greater than 1 degree	4.0	MI
Surface roughness (Ra) less than or equal to 32 microinches	1.0	MA
Surface roughness (Ra) greater than 32 microinches	4.0	MI
Threads/splines	1.0	MA
NDT (When intent is to look for isolated type defects)	100%	CR
Hardness Testing	As Required	As Required

Q-18 (ESD) ELECTRO SENSITIVE DISCHARGE ITEMS: Items furnished are to be ESD protected and labeled as ESD sensitive. Certification indicating all items supplied were handled only at certified ESD workstations is required with each shipment.

Q-19 DOMESTIC MATERIALS: Any specialty metals incorporated in articles delivered under this contract shall be certified by the supplier to be melted or produced in the United States, its possessions, Puerto Rico, or DFAR qualifying countries.

Specialty metals are: (1) Steel with a maximum alloy content exceeding one or more of the following limits: manganese 1.65%, silicon 0.60%, or copper 0.60%.

(2) Steel containing more than 0.25 percent of any of the following elements: aluminum, chromium, cobalt, niobium (columbium), molybdenum, nickel, titanium, tungsten or vanadium.

(3) Metal alloys consisting of nickel, iron-nickel, and cobalt base alloys containing a total of other alloying metals (except iron) in excess of 10 percent.

(4) Titanium and titanium alloys.

(5) Zirconium and zirconium base alloys.

Q-20 NADCAP APPROVED SOURCES: NADCAP approved sources are required for all processes listed on the purchase order. All processes performed must be within the source's NADCAP scope of approval. Accredited Suppliers of special processes and products are listed on the NADCAP Qualified Manufacturers' List (QML). The QML is publicly available online at www.eAuditNet.com

Q-21 KEY CHARACTERISTICS: When applicable, Key Characteristics are specified on the purchase order or the drawing. Data on Key Characteristics shall be collected by the Supplier and shipped to Primary Airline with each shipment. When necessary, this clause must be flowed down to sub-tier vendor/processor.

Q-22 PPAP: PPAP is required based off customer requirement, criticality of part and or supplier change. If flown down via the RFQ and PO, a Level IV PPAP is required. Review each PO Line Item for PPAP requirements. PPAP's must be approved prior to shipment of product.

Level IV PPAP will consist of:

1. Process Flow Diagram
2. P-FMEA
3. Control Plan
4. MSA (As required)
5. Initial Process Studies (As required)
6. Packaging, preservation, and labelling approvals (As Required)



7. Bubbled Drawing

8. FAIR

9. PPAP Approval Form (or equivalent)

PPAP’s are Living Documents and require updating when there are changes in the manufacturing location, changes in machine or equipment, process changes, nonconformance is issued against the product and/or as requested by Primary Aimline Quality. Submit PPAP documentation to your Primary Aimline Buyer.

Q-23 Thread Inspection: All threads shall be 100% inspected using a calibrated thread gage or as directed by drawing.

10 REVISION HISTORY

REV	DATE	CHANGE	APPROVED BY
20260720	20260720	INITIAL RELEASE	JOE CRAWFORD