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|  | AEI Fabrication Supplier Quality Requirements | |
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PURPOSE

The following Quality Requirements define the suppliers’ responsibilities for ensuring conformance to AEI purchase order requirements. These requirements have been implemented with the objective of receiving defect free products with the correct documentation on the scheduled delivery date. Failure to comply with these requirements may result in the supplier’s product being rejected and can adversely affect the supplier’s quality rating with AEI.

The supplier shall flow down all relevant purchase order requirements including, when applicable, the use of customer approved special process sources to any sub-tier suppliers involved in the manufacture of AEI product. Sub-tier suppliers are required to comply with all specified purchase order requirements. The supplier is responsible for ensuring that any work performed by a sub-tier supplier is in accordance with AEI’s purchase order requirements.

1. ETHICAL BUSINESS PRACTICES

AEI suppliers are expected to conduct themselves in a manner consistent with the highest standards of professional business conduct and encourages all suppliers to implement an effective ethics program. Suppliers shall not offer, promise, authorize, or provide, directly or indirectly, anything of value, including business gifts or courtesies, with the intent or effect of inducing anyone to engage in unfair business practices and shall avoid involvement in activities that may be perceived as a conflict-of-interest. Suppliers shall respect the legitimate proprietary rights and intellectual property rights of customers and take appropriate actions to protect sensitive information, including confidential, proprietary and personal information.

2. PRODUCT SAFETY & CONFORMANCE

Suppliers shall support product safety and conformance by ensuring robust management of special requirements, critical items, and key characteristics. Suppliers shall communicate to AEI any concerns with product safety. If there is a concern at the supplier’s premises regarding product safety during the manufacture of the product, the supplier shall notify its own employees of the concern and whenever possible, mitigate the concern. The supplier shall ensure that employees working on its behalf are aware of their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.


3. REVISION CONTROL

The supplier shall assure the drawing revision on file at their facility corresponds with the revision noted on AEI purchase orders. The supplier is responsible to contact AEI's purchasing agent with any discrepancies in drawing revisions.

4. CERTIFICATE OF CONFORMANCE

When indicated in AEI’s purchase order: Each shipment shall be accompanied by a Certificate of Conformance (C of C) certifying that product meets the requirements of the purchase order and specifications referenced on the drawing and/or purchase order. At minimum, the C of C shall contain the following information:

- Supplier's name and address
- AEI’s Purchase Order number

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- Product description
- Part number
- Part revision
- Quantity
- Statement certifying product compliance
- Shelf life (if applicable)
- Serial numbers (if applicable)
- Date code(s) or lot number(s) (if applicable)
- Signature and date by authorized representative

5. QUALITY MANAGEMENT SYSTEM

AEI encourages all suppliers to maintain an effective quality management system that meets the requirements of ISO9001, AS9100, and/or ISO 13485 to ensure product and process integrity as well as to effectively meet the requirements stated on AEI's purchase order, engineering drawings, and this document.

6. RAW MATERIAL AND SPECIAL PROCESSES CERTIFICATIONS

When indicated in AEI's purchase order: Raw material (aluminum, steel, peak, etc.) and special processes (paint, plating, chemical conversions, etc.) shall conform to specifications and standards specified on the drawing and/or AEI purchase order. The supplier shall provide documented evidence of this conformity including a listing of each material element or test result in the test report. The applicable material/special process conformance certificate shall contain the following information:

- Supplier's name and address
- Purchase order number
- Part number including revision
- Quantity
- Material/Special Process type and specification including revision (type/grade/class/physical and chemical properties, etc.)
- Lot number (manufacture/heat/batch number)
- Country of origin
- Signature and date by authorized representative

7. TEST AND INSPECTION REPORTS


When indicated in AEI's purchase order: the supplier shall provide acceptance test and/or inspection data with shipment of product, as further evidence of conformance to purchase order requirements.

8. RIGHT OF ENTRY

Upon request, the supplier shall allow AEI right of entry to perform inspections, surveys, or surveillance. These rights shall extend to AEI customers and regulatory agencies, at no increase in price, cost, or fee to AEI, AEI customers, or regulatory agencies.

9. WORKMANSHIP

Workmanship shall be of a level of quality to assure that the purchased material/process/product meets the performance requirements of the purchase order, engineering drawing, and referenced specifications.

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Products shall not be cracked, chipped, broken, or otherwise damaged beyond the limits of the original part specification. Product shall be free of scratches, sharp edges, loose, blistered, or foreign matter, and other evidence of poor workmanship that may render the product unsuitable for the purpose intended.

10. FOREIGN OBJECT DEBRIS (FOD)

The supplier shall ensure that products delivered to AEI are free of FOD. AEI encourages all suppliers to incorporate a FOD prevention program to identify and eliminate foreign object entrapment areas and paths through which foreign objects may migrate into deliverable products (see NAS-412 or AS9146 for guidance). Delivered products to AEI must be clean and free from any material/debris, such as machined chips, burrs, grinding dust, forming materials, corrosion, oil, and other foreign material on surfaces to prevent FOD entrapment.

11. NONCONFORMING MATERIAL

The supplier shall maintain a fully documented nonconforming material control system. Nonconforming or suspect material shall be identified and segregated to prevent unintended use or delivery. The supplier shall not ship any product which deviates from drawings, specifications, or other procurement requirements without the express written approval of AEI. In instances where nonconforming product may have been shipped, the supplier shall promptly notify AEI.

12. CORRECTIVE ACTION


The supplier shall have a corrective action system in place. All requests for corrective action shall be answered by the due date identified in AEI’s request for corrective action form. If this date cannot be met, a formal request for extension shall be requested through AEI’s purchasing agent. Late responses may affect the supplier’s rating and result in potential loss of business. Corrective action responses shall be documented and include containment, identification, and segregation of material. The response shall describe the root cause of the problem, corrective action taken to prevent reoccurrence, and include objective evidence of actions taken. When a sub-tier is responsible for the nonconformance the prime supplier shall flow down a request for corrective action to the sub-tier supplier.

13. CALIBRATION – MEASUREMENT TRACEABILITY IS REQUIRED

Supplier shall maintain adequate equipment to measure and test product for conformance to AEI requirements and have a calibration system that is traceable to NIST or use an independent calibration service that has a system complying with the latest revision of ANSI/NCLS Z540.3 or ISO 17025.

14. PACKAGING & HANDLING

Suppliers shall ensure that required documentation is included with shipments and that the correct material is provided and properly marked, identified, and packaged. Packaging shall be in accordance with best commercial practices. Packaging must be done in a manner that protects against potential damage from shipping, FOD, corrosion, moisture, deterioration, contamination or damage by processing, handling, and storage at supplier’s facility or in transit to AEI or any sub-tier supplier.

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15. RECORD RETENTION

The supplier shall maintain records pertaining to the manufacture, inspection and/or testing of all AEI products. Records shall be adequate to ascertain the quality level of production processes and shall include any chemical and physical test results of raw materials used in the manufacture of product. Records shall be retained for a period of 10 (ten) years and available for review upon request.

16. CHANGE IN LOCATION, NAME, OR OWNERSHIP

The supplier shall provide notice to AEI of a change in manufacturing location, name, or ownership.

17. COUNTERFEIT PARTS PREVENTION

No supplier or distributor shall deliver any counterfeit parts, materials, or components to AEI. If suspect/counterfeit material is furnished to AEI, the seller shall replace material at no additional cost to AEI. Seller shall be liable for all costs relating to impoundment, removal, and replacement. Reference AS5553 Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition and AS6174 Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material for additional information and definitions.

18. SOLDERED ELECTRICAL AND ELECTRONIC COMPONENTS AND ASSEMBLIES

When indicated in AEI's purchase order: soldering and solder processes shall be in accordance with J-STD-001 Class 3. Workmanship for soldered electrical and electronic assemblies shall be in accordance with the latest revision of IPC-A-610, Class 3.

19. CALIBRATION SERVICE PROVIDERS


When AEI's purchase order is for calibration services, the calibration service provider shall have a calibration system in accordance ISO 17025:2005, 10012:2003, or other accredited calibration laboratory. AEI will request evidence of accreditation as needed.

20. DFARS 252.225-7009 SPECIALTY METALS FROM QUALIFYING COUNTRY

When indicated in AEI's purchase order: the supplier agrees to only supply materials in accordance with DFARS clause 252.225-7009. The supplier shall flow down this requirement to all sub-tier suppliers used to fulfill AEI purchase orders. Specialty Metals are typically defined as metals containing Titanium, Zirconium, Cobalt, Corrosion Resistant/Stainless Steel, or High Performing Magnets. The supplier shall provide a certificate of conformance that certifies the origin of material melt of specialty metals by a qualifying country.

21. SHELF-LIFE MATERIALS

Items with limited shelf life (i.e. epoxy, adhesives, rtv, etc.) shall be marked on the item, package, or container with the manufactured date, storage temperature, special handling requirements, and expiration date of the items. AEI expects to have 95% of useful shelf life remaining and will not accept materials with less than 80% of shelf life, without written authorization from AEI's Purchasing Representative.

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22. ELECTROSTATIC DISCHARGE (ESD) PROTECTION

Components and assemblies that are susceptible to electrostatic discharge damage shall be handled and packaged to prevent ESD damage. All units which contain ESD-sensitive devices shall be wrapped in a static shielding barrier in direct contact with and fully surrounding the unit. Containers shall be marked as containing ESD devices.

23. SOURCE INSPECTION

When indicated in AEI’s purchase order: AEI reserves the right to perform a source inspection at the supplier, or sub-tier supplier’s facilities, at any point in the manufacturing process to determine conformance to purchase order requirements. When a source inspection is required, it shall be indicated on the AEI purchase order. The supplier shall contact AEI’s procurement representative to request source inspection seventy-two (72) hours prior to intended inspection date.

24. FIRST ARTICLE INSPECTION REPORT

When indicated in AEI’s purchase order: A first article inspection report (FAIR) shall be provided on initial purchase of product unless waived in writing by AEI’s purchasing agent. The FAIR shall be performed in accordance with AS9102 requirements. First Articles shall be conducted using AEI-provided drawings, parts list, notes, specifications, and any lower-level drawing invoked. The FAIR shall include the complete AS9102 forms, a ballooned drawing, and all applicable material, special processing, and test certifications.

| Revision | Revision History | Approved By |
|----------|------------------|--------------------------------|
| 1 | Initial Release | Ron Kotloff and Keith Adams |
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