



ENGINEERING SPECIFICATION

1.0 SCOPE

This specification represents the agreement between CPI MPP and the supplier for maintaining an acceptable quality system to ensure that product and services meet specified requirements. Approved CPI MPP suppliers must maintain a quality-management system that meets the requirements of ISO9001:2008 or, at a minimum, the requirements listed within this Engineering Specification.

2.0 APPLICABLE DOCUMENTS

ANSI/ISO/ASQ Q9001:2008	Quality Management System
MT 4030-3010	Supplier Deviation/Change Request (SDR)
P0-1	Approved Sources for Raw Materials and Processes
M7-13	Fabrication Standards
M7-179	Approved Lubricants, Coolants and Solvents
QA 4008-3015	Supplier Assessment Report and Checklist
RoHS	Reduction of Hazardous Substances Directive 2002/95/EC of the European Parliament, and its amendment 2005/747/EC

3.0 RESPONSIBILITIES

- 3.1 Planning/Purchasing.** Responsible for ensuring that the supplier quality-system requirements flow down to all production suppliers.
- 3.2 Supplier Base Management Committee (SBMC).** Responsible for ensuring that reviews of production suppliers' quality systems take place at established frequencies.
- 3.3 Assessment Team.** Utilizing "Supplier Assessment Report and Checklist," audits production supplier's quality system to ensure it meets the requirements of this specification. Audit results are documented and presented to the supplier and the SBMC.

4.0 QUALITY SYSTEM REQUIREMENTS

This Engineering Specification outlines the minimum requirements for an approved CPI MPP supplier who does not meet the more comprehensive and universally recognized requirements of ISO9001:2008. Approved suppliers shall maintain a Quality Assurance Manual that documents the overall quality-management system. CPI MPP will periodically verify that the supplier's quality-management system ensures that the supplier's actions meet the intent of their quality manual and this specification. Below is a listing of required elements:

Revision Information

Added 4.1.13 and revised 4.0, 4.1.1, 4.1.9, 4.1.11, 4.1.12 for compliance with revised FAA Title 14, Section 21.

Verify revision before use.

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4.1 Specific Requirements

- 4.1.1 Quality Manual.** The supplier shall establish and maintain a quality manual that includes the scope of the quality system and the documented procedures established for the quality system. CPI shall be notified of any significant changes to the supplier's quality system.
- 4.1.2 Document Control.** The supplier shall provide for and document a system for maintaining customer-supplied specifications and drawings; internal drawings, specifications, procedures, method sheets, work instructions, routers, and so forth. The system shall ensure that the latest applicable drawings and specifications, as well as authorized changes thereto, are used for fabrication, inspection, and testing. The supplier shall also demonstrate how CPI documents are controlled throughout their supply chain.
- 4.1.3 Quality Records.** A documented procedure shall be established to define the controls needed for the storage, protection, retention time, and disposal of quality records. The procedure will include identification of what is considered a quality record. Records relating to the quality of product purchased must be maintained for a minimum of 5 years.
- 4.1.4 Training.** The supplier shall document training requirements to ensure the competency of those who manufacture and inspect product for CPI.
- 4.1.5 Customer Requirements/Contract Review.** The supplier shall maintain a system for identifying and reviewing all customer requirements, including the drawing, purchase order, all related Purchasing specifications (including P0-1 Sec I-IV "Approved Sources for Raw Materials and Processes", M7-13, "Fabrication Standards", M7-179, "Approved Lubricants, Coolants, and Solvents", and RoHS compliance), and requirements for delivery.
- 4.1.6 Supplier Management.** The supplier shall ensure that purchased product conforms to specified purchase requirements (see specifications listed in 4.1.5), including flow downs from CPI (such as RoHS). The supplier will evaluate and select subcontractors based on their ability to supply product in accordance with requirements.
- 4.1.7 Process Control.** The supplier shall maintain systems/methods (such as SPC, method sheets, and inspection plans) used to ensure that manufacturing processes result in consistent and predictable results.
- 4.1.8 Raw-Material Control.** The supplier shall maintain a system to ensure that all raw materials used for fabrication satisfy specification requirements and can be traced back to the original source of supply. Management of raw-material control should

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also meet the requirements of P0-1, "Approved Sources for Raw Materials and Processes." If applicable, the supplier should also explain their basic approach for achieving RoHS compliance.

- 4.1.9 Inspection Process.** The supplier shall maintain a system for verification to specified requirements, including incoming (receiving), in-process, and final inspection. Evidence of conformance to the acceptance criteria shall be maintained. Records shall indicate the person(s) authorizing release of the product.
- 4.1.10 Measuring and Test Equipment.** The supplier shall provide and maintain gages and other verification devices necessary to ensure that product conforms to specified requirements. In order to ensure continued accuracy, all measuring devices used for product acceptance shall be properly calibrated to national standards at established intervals.
- 4.1.11 Nonconforming Material.** The supplier shall document and maintain a system for handling, controlling, and dispositioning nonconforming material. This system shall ensure that all nonconforming material and scrap is positively identified to prevent use, shipment, and intermingling with conforming material. Product that does not meet CPI requirements may be provided to CPI MPP only after prior approval has been given and documented using CPI MPP's "Supplier Deviation/Change Request (SDR)" form. CPI shall be notified immediately of nonconforming products that have shipped or of any defects that may impact CPI's end-product conformance to customer requirements.
- 4.1.12 Closed-Loop Corrective-Action System.** A documented procedure shall be established to define requirements for determining the cause of nonconformances and implementing appropriate actions to prevent recurrence. The corrective-action system should include provisions for supplier nonconformances, internal nonconformances, internal audit system nonconformances, and customer returns or corrective-action requests. Corrective actions shall be classified (*Example:* Major or Minor) and reviewed for effectiveness. All corrective actions requested by CPI necessary to ensure compliance with this specification or to ensure product and services meet CPI requirements shall be implemented.

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4.1.13 Handling, Storage (Segregation), and Packing. The supplier shall maintain a system for ensuring the proper handling, storage, and packing of materials to prevent deterioration or damage. This system shall include, as applicable:

- cleaning
- prevention, detection, and removal of foreign objects
- special handling for sensitive products
- marking and labeling, including safety warnings
- shelf-life control and stock rotation
- special handling for hazardous materials

4.2 Quality System Recommendations

4.2.1 Management Review. CPI MPP strongly recommends that the supplier management review the organizations' Quality Management System at planned intervals to ensure continuing suitability, adequacy, and effectiveness.

4.2.2 Internal Audit System. CPI MPP strongly recommends that the supplier define and maintain a system for auditing the quality-management system to ensure that it is current and effective.

4.2.3 Preventive Maintenance. CPI MPP strongly recommends that the supplier maintain a system and environment for ensuring all manufacturing equipment is maintained in a manner that facilitates consistent and predictable output.