

# Meyer Engineered Materials

Supplier Quality Requirements		
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Revision History			
Revision	Changes	Date	By
A	Initial Release	6/1/23	C. Smith
B	Updates related to phase 1 AS9100 audit	6/22/23	C. Smith
C	Added supplier performance requirement	7/11	C. Smith

## 1. Introduction and Scope

Meyer Engineered Materials (MEM) has created this *MEM Supplier Quality Requirements* document to clearly communicate our requirements, in the implementation of the Supplier's own quality management system.

- 1.1. This document defines general and specific quality system requirements for the MEM supply chain, which are further defined in Section 3.
- 1.2. This document applies to all suppliers/sub-contractors whose products or services are included in MEM's end items.
- 1.3. This document is intended to explain and supplement, but not replace or nullify any specifications, standards, terms and conditions, purchase order terms, purchase agreements or other contractual agreements.
- 1.4. The requirements outlined in this document are designed to ensure that the supplier's quality practices comply with Federal regulations, industry standards, and MEM practices; specifically:
  - Federal Aviation Administration, Title 14 Code of Federal Regulations
  - The requirements of SAE Aerospace Standard AS9100D
  - Best industry practices for aerospace supplier quality management
  - MEM Customer's requirements that are applicable to MEM supply chain
  - MEM specific specifications, standards, forms, processes and practices
- 1.5. All supplies and services received by MEM shall be subjected to inspection verification after receipt, as necessary to assure conformance to purchase order requirements. MEM shall not be obliged to subject non-conforming supplies to complete inspection. **Unless otherwise authorized in writing by MEM, the Supplier shall furnish MEM only articles which are in complete compliance with all purchase order requirements.**
- 1.6. ANY DEVIATIONS TO THE REQUIREMENTS OF THIS DOCUMENT MUST BE APPROVED WITH WRITTEN CONSENT OF MEM.
- 1.7. Suppliers shall ensure that all their employees are aware of:
  - their contribution to product or service conformity
  - their contribution to product safety
  - the importance of ethical behavior

## 2. Definitions

**AS9100D: Aerospace Standard** - Standard developed by a technical Committee including all elements of ISO9000:2015 with additional requirements needed for the Aerospace Industry.

**AS9102: First Article Inspection Requirement** – Document developed by a technical committee to standardize First Article Inspection and to provide consistent processes and documentation requirements needed for the aviation, space, and defense industry.

**Contract:** Purchase Order (PO)

**Commercial, off-the-shelf (COTS):** This is product which is ready-made and available for sale, lease, or license to the general public.

**Counterfeit Part:** An unauthorized copy, imitation, substitute, or modified part (e.g., material, part, component), which is knowingly misrepresented as a specified genuine part of an original or authorized manufacturer.

*NOTE:* Examples of a counterfeit part can include, but are not limited to, the false identification of marking or labeling, grade, serial number, date code, documentation, or performance characteristics.

**FAA: Federal Aviation Administration** - Government body tasked with assuring safety of aviation in the USA.

**Foreign Object Debris (FOD):** A substance, debris or article that has invaded a product, assembly or system, and would potentially cause damage.

**Meyer Engineered Materials (MEM):** This includes MEM LLC, employees, representatives, customers and regulatory agencies including the FAA.

**NADCAP: National Aerospace and Defense Contractors Accreditation Program** - Independent certification for special processes.

**Original Equipment Manufacturer (OEM):** An organization that manufactures products or components that are purchased by a company and retailed under the purchasing company's brand name. OEM refers to the company that originally manufactured the product

**Special Process(es):** Any processes for production and service provision where the resulting output cannot be verified by subsequent monitoring or measurement and, as a consequence, deficiencies become apparent only after the product is in use or the service has been delivered.

**Supplier:** Any subcontractor that include the following Supplier Type:

**D – Distributors** (Standards Hardware, COTS and OEM products)

**F – Finishing & Special Processes** (Special Processes including but not limited to Plating, Heat Treat, and Painting)

**M – Manufacturers** (Machining, Casting, Molding, Forging, Metal Forming)

**R – Raw Material Sources** (Wrought Metals, Plastics, Extrusions)

**S – Support Services & Products** (Prototyping, OEM (Original Equipment Manufacturer), Catalog Sales, Computer Services and Programming, Training Services, COTS (Commercial Off The Shelf) Sources, Engineering Defined Sources, Calibration & Test Services, Assembly, Consumables)

### 3. Supplier Quality Requirements

In addition to the requirements stated in Section 1., the table below describes and defines those requirements for which Suppliers are responsible. The **Applicability** column defines which **Supplier Type** (see Section 2) are affected by the specific requirement.

Requirement	Applicability	Comments
1. The Supplier shall allow an on-site audit of their Quality Control System by either MEM personnel, and/or MEM customers, and/or regulatory authorities.	All Suppliers	Advance notice will be given before an on-site audit is conducted.
2. The supplier shall conduct a review of all the MEM Purchase Order requirements to ensure their product or service conforms to those requirements.	All Suppliers	The supplier may be asked to present evidence of review during an audit.
3. The supplier's Quality Management System shall address the requirements contained in this document.	All Suppliers	Upon request, you may be asked to provide MEM with a copy of your Quality Manual.
4. Quality related documentation and certifications shall be retained and available to MEM for a minimum of ten (10) years unless otherwise stated in the contract.	All Suppliers	The supplier may be asked to present such records during an audit. If the Supplier is not able to maintain records for this duration, forwarding a copy of inspection records, test reports, certifications with shipped product meets this requirement.
5. All suppliers are responsible for ensuring they have the latest revision of MEM drawings and specifications. The latest revisions of the MEM drawings/specifications will be stated on the MEM Purchase Orders. <u>It is the responsibility of the suppliers to obtain any additional documents, standards or specifications called out on those drawings.</u>	All Suppliers	<ul style="list-style-type: none"> <li>• Documents will be available to appropriate personnel as required.</li> <li>• Obsolete documents will be removed from use to preclude unintended use.</li> <li>• Supplier may be asked during an audit, to show methods to ensure that the latest applicable drawing, specifications, digital data and purchase order requirements are used for fabrication, inspection, verification and testing.</li> </ul>

<p>6. The supplier shall notify MEM of any substitutions/changes in their product and/or process definition. MEM reserves the right to determine which changes affect fit, form or function.</p>	All Suppliers	Any and all changes must be approved by MEM prior to shipment.
<p>7. Supplier shall notify MEM in the event of changes in the following production processes:</p> <ul style="list-style-type: none"> <li>• Manufacturing relocation</li> <li>• Changes in personnel (CEO, Plant Director, Quality Director, etc.) or ownership</li> <li>• Major changes/revisions to the Quality Manual/System.</li> </ul>	All Suppliers	Supplier should submit product to First Article Inspection, after major changes.
<p>8. In absence of specific packaging requirements on the drawing or purchase order, the supplier shall provide packaging that protects the component from mechanical and environmental damage during transport and storage.</p>	All Suppliers	-None-
<p>9. Nonconforming and suspected nonconforming material shall be segregated and clearly marked as such within the Supplier's facility.</p>	All Suppliers	When the Supplier identifies a nonconformance to requirements, the Supplier has the option to submit an Advance Rejection to MEM for disposition, prior to shipment of product.
<p>10. Within 24 hours of discovery, the Supplier shall notify MEM in writing on nonconforming or suspected nonconforming materials shipped to MEM.</p>	All Suppliers	The Supplier shall take prompt action to correct conditions which have resulted or could result in the submission to MEM of products which do not conform to drawing, specification and/or purchase order requirements.
<p>11. Any corrective action request issued by MEM shall be completed by the Supplier in a timely manner.</p>	All Suppliers	The response shall be in writing detailing root cause, correction and verification activities to prevent further occurrence, following MEM
<p>12. The Supplier shall submit a Certificate of Conformance (C of C) with each product shipment. C of C is to include:</p> <ul style="list-style-type: none"> <li>• Part Number</li> <li>• Lot #</li> <li>• Quantity Shipped</li> <li>• PO #</li> <li>• Specification/Drawing &amp; Revisions</li> </ul>	All Suppliers	Before shipment to MEM, Suppliers shall have a system to verify all proper documentation and certification is included.

<ul style="list-style-type: none"> <li>• C of C is to be signed by an authorized supplier representative.</li> </ul>		
<p><b>13. MEM owned tooling stored at the supplier's facilities must be given periodic tooling inspection and verification as required verifying their continued accuracy.</b></p>	All Manufacturers	Records shall be kept of verification activities, and available for review by MEM.
<p><b>14. All products that are manufactured to MEM PO requirements shall be submitted with all special processing and raw material test report/certification with each shipment. This includes test specimens for design approval, inspection/verification, and investigation when required.</b></p>	All Manufacturers	Certification must show acquisition and full traceability throughout the Suppliers system.
<p><b>15. MEM furnished material and tooling shall be identified, separated, and stored in the appropriate area. All material drop-shipped at the Supplier's facility, shall have MEM acceptance before production can begin on said shipment.</b></p>	All Manufacturers	MEM must be notified immediately if condition of material or tooling is damaged or is not capable of producing to its intended purpose.
<p><b>16. Suppliers will have a system to define the appropriate operators and sequences to produce the product/service to MEM requirements.</b></p>	All Manufacturers	-None-
<p><b>17. Suppliers will, at appropriate points in production, have a method of inspection/validation of first piece, in-process and/or final inspection before release to further processing or delivery.</b></p>	All Manufacturers	<p>The Supplier is required to maintain adequate records of all inspection, test and other quality control activities and shall be available for review by MEM and/or our customers at no charge.</p> <p>If statistical sampling is used for product acceptance, the plan shall have an acceptance number of zero (0). (c=0 plan)</p>
<p><b>18. All products manufactured to MEM drawing, when required on the PO, shall have a First Article Inspection per AS9102B. A copy shall be retained by the supplier and made available for review by MEM at no charge upon request.</b></p>	All Manufacturers	<p>First Article Inspection Report must be re-accomplished under the following circumstances:</p> <ul style="list-style-type: none"> <li>• Drawing revision change</li> <li>• Lapse in production more than 3 years</li> <li>• Changes to Supplier's facility</li> </ul>

<p><b>19. The Supplier shall maintain a system for identifying the inspection status of supplies.</b></p>	<p>All Suppliers</p>	<p>When Acceptance Authority Media (AAM) are used (e.g., stamps, electronic signatures, passwords), the supplier shall establish controls for the media.</p> <p>NOTE: Use of AAM must be considered as a personal warranty of compliance and conformity and communicated to authorized employees.</p>
<p><b>20. Suppliers of products manufactured to MEM PO requirements shall review their manufacturing capabilities, special controls, work instructions, test equipment, fixtures, tooling, and the skills required to assure they have the ability to produce products that conform to MEM PO requirements.</b></p>	<p>All Suppliers, except Distributors</p>	<p>This includes any employee competency or required qualifications to meet PO requirements.</p> <p>The supplier may be asked to present evidence of review during an audit.</p>
<p><b>21. The Supplier shall flow down all the applicable quality requirements stated in MEM purchase orders to any sub-tier suppliers selected by the Supplier. No additional supplier shall be utilized without approval by MEM.</b></p>	<p>All Suppliers, except Distributors</p>	<p>Suppliers shall have a system to approve and disapprove suppliers based on their ability to meet MEM contractual requirements.</p>
<p><b>22. The Supplier shall use customer designated or approved external providers only for products and services related to MEM purchase orders, including process sources.</b></p>	<p>All Suppliers, except Distributors</p>	<p>Supplier shall have a system for selecting suppliers which includes approval from MEM prior to any PO being issued to support products or services contracted by MEM.</p>
<p><b>23. Supplier procured parts, materials, and processing to be used on MEM end items shall be subjected to a receiving inspection to assure conformance to applicable drawings, specifications and requirements of the MEM purchase order.</b></p>	<p>All Suppliers, except Distributors</p>	<p>Acceptance requirements shall include test reports, certifications, or inspection verification of physical and chemical properties of raw materials traceability to the source.</p>
<p><b>24. The supplier will develop work instructions to clearly describe all operations which affect conformance to MEM PO requirements, including all special requirements, critical items, and/or key characteristics.</b></p>	<p>All Suppliers, except Distributors</p>	<p>The supplier may be asked to present evidence during an audit.</p>
<p><b>25. The Supplier shall provide and maintain tooling, gauges and other precision measuring and test equipment to the extent necessary to ensure that supplies and services conform to the technical requirements and will not compromise the quality of MEM end items.</b></p>	<p>All suppliers except Distributors</p>	<p>Tools shall be calibrated/validated in accordance with established intervals using MEM accepted standards or methods that are traceable to the National Institute of Standards and Technology (N.I.S.T.).</p> <p>Records shall be kept of calibration activities.</p>

<p><b>26. Suppliers who are Distributors shall maintain a quality system sufficient to ensure items from original manufacturer meet all purchase order, drawing, specification and quality requirements.</b></p>	Distributors only	-None-
<p><b>27. Suppliers of commercially developed and manufactured catalog type items that are available for general purchase, are responsible for ensuring their products conform to drawings, specifications or applicable industry standards.</b></p>	Distributors only	-None-
<p><b>28. If the supplied product is life-limited, the supplier is required to furnish either the expiration date, or the material cure date.</b></p>	All life-limited suppliers.	Life-limited materials shall have at least 75% of the shelf life remaining upon receipt at MEM receiving dock.
<p><b>29. Product subject to special processing must be accompanied by certification documents. The documents shall specify the Process Specification and Revision, with a statement of the Suppliers conformance to the requirements of that process.</b></p>	All Processors	<p>All Special processing shall be accomplished by:</p> <ul style="list-style-type: none"> <li>• MEM Customer Approved.</li> <li>• NADCAP Approved.</li> <li>• Industry Accepted Approval.</li> <li>• MEM Approved facilities.</li> </ul>
<p><b>30. Suppliers of raw materials shall provide raw material certifications traceable to the mill source, with each shipment.</b></p>	Raw Materials suppliers	-None-
<p><b>31. Suppliers shall plan, implement, and control processes, for the prevention of counterfeit or suspect counterfeit part use and their inclusion in products delivered.</b></p>	All Suppliers	Ref: AS9100D 8.1.4 Prevention of Counterfeit Parts
<p><b>32. Suppliers shall implement all necessary arrangements to prevent, detect and eliminate FOD during manufacturing, assembly, inspection, storage, maintenance, packaging and shipping.</b></p>	All Suppliers	-None-
<p><b>33. Suppliers shall communicate the modification of any methods, processes, or equipment which are critical in fulfilling a purchase order for MEM</b></p>	All Suppliers	-None-
<p><b>34. Supplier shall timely and effectively communicate with MEM regarding any purchase order or post delivery requirement</b></p>	All Suppliers	-None-



<b>35. Supplier shall maintain design and development controls when applicable to an MEM purchase order</b>	Manufacturers	Design and development controls should be based on AS9100D standards.
<b>36. MEM tracks and monitors supplier performance regarding to quality, on-time delivery, regulatory compliance, customer service, and other factors.</b>	All Suppliers	MEM may issue corrective action to the supplier as needed.