



Purchase Order Quality Requirement Clauses

Section I: Administrative

1. Scope. This document lists the quality purchase requirements (QPRs) that JEM Engineering uses in business agreements such as purchase orders or contracts with Sellers doing business with JEM Engineering. JEM Engineering may specify all, any, or none of these QPRs at its discretion.

2. Definitions.

a. A Seller is any person or company that agrees to supply or provide a product, material, assembly, or service to JEM Engineering, for a monetary price to be paid by JEM Engineering.

b. A Customer is a party that agrees to purchase from JEM Engineering delivery of a product or a service.

c. A Buyer is JEM Engineering and/or JEM Engineering's Customer.

d. A contract is a purchase order, a statement of work, or other legal contract vehicle obligating delivery of some product or service by the Seller to JEM Engineering.

Section II: Mandatory QPRs

QPR clauses 1-28 typically apply to all purchase orders issued by JEM Engineering. The Seller must meet all requirements that apply to their products or services to do business with JEM Engineering.

1. Quality Standards – Seller shall manage and maintain standard quality and calibration systems such as: AS9100, D6/82479 Addendum 1, MIL-STD-45662, NADCAP, ISO 10012-1, or ISO 9001. The Seller shall maintain an inspection system acceptable to the Buyer and shall tender for acceptance only supplies that have been inspected in accordance with the inspection system and have been found by the Seller to be in conformity with all drawings, specifications, and other purchase requirements. Seller must complete a Supplier Survey Form (JEM Engineering quality document #714-0013-000) indicating Seller's current quality system and submit it to the Buyer prior to delivery of product.

2. Quality Records – Seller must maintain quality records for a minimum of seven (7) years (unless otherwise specified by terms of the purchase order) and readily retrievable upon request.

3. Flow-down to Subcontractors – The Seller's quality system shall assure all relevant purchase order requirements are flowed down to the Seller's sub-tier suppliers and subcontractors. Sub-tier sources are responsible to the Seller to comply with the same specifications in this contract or purchase order. The Buyer will consider the failure of any sub-tier sources to comply with terms of this contract or purchase order as the responsibility of the Seller. Seller shall require sub-tier suppliers to record and maintain the same details as applicable to this order, including acknowledgement of requirements for which they are responsible. The Buyer reserves the right to approve subcontractors based on requirements and resources.



- 4. Special Process Conformance** – The Seller and any sub-tier supplier engaged in special processes (Examples: cleaning, magnetic particle and penetrant inspection, heat treatment, molding, painting, plating, soldering, welding, x-ray, etc.) shall be controlled, and subject to Buyer review and inspection. Finish shall adhere to JEM’s Cosmetic Finish Specification document 714-0024-000. JEM may request certification stating adherence to the Cosmetic Finish Specification document 714-0024-000 at the revision available to the supplier at time of purchase.
- 5. Materials Receiving Inspection** – Seller certifies that it has performed receiving inspection on purchased materials to ensure compliance with all drawings and specifications, and has test reports and/or raw material certifications on file available for review upon request.
- 6. Manufacturing Routings** – Seller certifies that shop travelers/manufacturing work orders will reflect and indicate work requirements, including non-destructive inspection, as evidence by the Seller’s quality assurance signature or acceptance stamp, and are on file available for review upon request.
- 7. Latest Revisions** – At no time will other revisions be used other than what is indicated on the drawings or purchase orders without the express, written permission of an authorized representative of the Buyer. Seller shall make no change in design, manufacturing or assembly processes or source of supply, after approval of the first production test item or after acceptance of the first completed end item, without the written approval of the buyer.
- 8. Right of Entry (RoE-JEM)** – The Seller shall permit the Buyer the right of entry to determine and verify the quality of work, records and material at any place, including the plant of any subcontractors. These conducting audits of Seller at Seller’s facilities.
- 9. Configuration Control (CM)** – Seller shall ensure configuration control by verifying that the drawings/documents received from the Buyer are the latest version.
- 10. Certificate of Compliance (CofC)** – A certificate of compliance shall accompany all shipments. The certificate of compliance must be signed by an authorized representative and reflect all information necessary to identify the product, quantity, current revisions, origin of material, and whatever services or processes you have performed.
- 11. Control of JEM-supplied Materials** – All materials and parts supplied by the Buyer remain the property of the Buyer or the Customer. The Seller will properly track and segregate the Buyer-supplied property used in this purchase order, including serial or part number tags. The Seller shall not discard any JEM-supplied materials or parts without the written approval of the Buyer.
- 12. Control of Non-Conforming Product** – The Seller will not knowingly send nonconforming product to the Buyer without explicit permission from the Buyer. If the Buyer detects nonconforming product, it shall segregate, identify, and determine disposition of said product. Disposition may include return of nonconforming product to the Seller via Return Material Authorization (RMA), and a Corrective Action Report or Nonconforming Product Report provided by the Buyer. The Seller shall complete the Corrective Action Report by documenting the cause and corrective action taken.
- 13. Product Certification** – Seller shall certify that all supplied parts conform to purchase order requirements, applicable specifications, finishes, dimensions, etc. Seller shall make records on file available to examination by the Buyer.



- 14. Key Characteristics (KCs)** – The Seller shall inspect all key characteristics referenced on the purchase order or print, for 100% of the shipment. All components with key characteristics referenced on the model/drawing shall be serialized. Items that cannot be serialized due to size/shape shall be bagged and tagged individually and reference the inspection report number for that item. The serial number should ideally be located next to the part number and shall be legible after finish (coating, paint) requirements are complete.
- 15. Handling, Packaging, Preservation and Delivery** – The Seller shall use appropriate methods of handling, packaging and preservation to prevent damage of product in process and during delivery. The Buyer may specify packaging instructions for specific deliverables. All ESD items shall be handled, packaged and identified in accordance with MIL-STD-1686 and MIL-STD-129, or best commercial practices, as applicable.
- 16. Lot Traceability Shipment Requirements** – The Seller may not commingle lots. Shipments may consist of no more than two (2) manufacturer’s lots for each part number included in an order. No quantity of a single manufacturer’s lot may consist of less than 20 percent of the total quantity per shipment unless otherwise specified on the purchase order.
- A production lot shall consist of parts that are all the same configuration fabricated under same conditions, from the same material, processed together and produced as one continuous run.
- A molded lot consists of the same part number, of one combination of plastics or composite raw materials, produced using one or more basic molds.
- A casting, forging, machined or welded part, or stamping lot consists of the same part number, of one alloy, produced using the same processing parameters (including heat treat) and contains a homogeneous heat pour, or same basic material.
- A pre-treatment lot (such as chemical washes) shall consist of treated articles on the same order, treated under the same conditions, with the same chemical compositions, from the same tanks.
- A plating lot (cadmium, anodize, chemical milling, etc.) shall consist of treated articles on the same order, treated under the same conditions, with the same chemical composition, from the same tank.
- A coating lot (paint, dry film lube, etc.) shall be processed as one batch, on the same part, on the same order. A batch is defined as the end product of all of the raw materials mixed or blended in a single or continuous operation.
- 17. Nondisclosure Agreement (NDA)** – The Seller shall not provide drawings, models, prototypes, or JEM-supplied of parts or services to any person or agency outside their own company, unless with the express permission of the Buyer. Parties shall execute a NDA for the purpose to limiting liability.
- 18. Acceptance at Destination** – All articles delivered under the purchase order/subcontract are subject to the Buyer’s acceptance at destination. Failure to comply fully with all requirements indicated on this purchase order/Subcontract may be cause for rejection of shipments and delay payment of Seller's invoice.



- 19. Material Suppliers** – Material supplied by the Seller against this contract must be purchased from sources approved by the Buyer or the Customer.
- 20. Shelf Life & MSDS** – When the product or service from the Seller includes hazardous materials or materials with a limited shelf life, the Seller shall include the expiration date of the materials used and batch identification on the required certifications. Identification shall include the start date, (date of manufacture or manufacturer's recommended start date) and the expiration date for the use of the controlled materials. Seller shall identify any special storage conditions. MSDS sheets are required with each shipment.
- 21. Product Verification** – Verification, inspection, or acceptance by the Buyer shall not absolve the Seller of the responsibility to provide acceptable product, nor shall it preclude subsequent rejections of said product by the Buyer.
- 22. Warranty** – The Seller shall maintain a guarantee that warrants every item delivered under this contract shall be free from all defects in materials and workmanship. The Seller further agrees to regrade, repair, rework, or replace the item(s) if defective in material or workmanship, if damaged in shipping to Buyer, or if item fails within the warranty period. If the Seller does not specify a warranty period in their Terms & Conditions of sale, then the Buyer shall regard the warranty period as within 18 months of Buyer acceptance.
- 23. Rework/Repair** – The Seller agrees to accept all cost, associated with rework, to include removal and replacement of the part, unless such work is necessary as a result of errant documentation supplied by the Buyer or an Engineering Change Request/Order (ECR/ECO).
- 24. Exception Authority (XA ____)** – Upon receiving notice of contract acceptance from the Buyer, Seller shall indicate within one business day any QPR that it cannot meet. The Buyer may submit a modified contract, specifying the Seller as exempt from one or more QPRs from the original quote or contract, by using this clause and specifying the exempted requirement(s).
- 25. Acceptance of Subcontract agreement** – All articles subcontracted under the purchase order/Subcontract are subject to JEM acceptance. Failure to comply fully with all requirements indicated on the purchase order/Subcontract may be cause for rejection of shipments and delay payment of Subcontractor's invoice. All subcontractors are subject to meeting and agreeing with JEM Certificate of Conformances per the purchase order requirement clause indicated. This is including, but not limited to:

A production lot that shall consist of parts that are all the same configuration fabricated under same conditions, from the same material, processed together and produced as one continuous run.

A molded lot consists of the same part number, of one combination of plastics or composite raw materials, produced using one or more basic molds.

A casting, forging, machined or welded part, or stamping lot consists of the same part number, of one alloy, produced using the same processing parameters (including heat treat) and contains a homogeneous heat pour, or same basic material.



A pre-treatment lot (such as chemical washes) shall consist of treated articles on the same order, treated under the same conditions, with the same chemical compositions, from the same tanks.

A plating lot (cadmium, anodize, chemical milling, etc.) shall consist of treated articles on the same order, treated under the same conditions, with the same chemical composition, from the same tank.

A coating lot (paint, dry film lube, etc.) shall be processed as one batch, on the same part, on the same order. A batch is defined as the end product of all of the raw materials mixed or blended in a single or continuous operation.

All parts may be received in full or partial shipments, but said parts shall pass JEM quality control standards (IPC-A-610 Class2 unless specifically notified otherwise).

- 26. Suspect/Counterfeit Items** – The Seller shall deliver product made only from new and authentic materials. The delivered product shall contain no counterfeit or suspect counterfeit parts. The Seller shall purchase parts and materials directly from the original equipment or component manufacturer (OEM) or through a distributor authorized by the OEM, not from independent brokers. The Seller must authenticate traceability of materials to the applicable OEM. Buyer will report incidents of suspect parts to the United States government.

If the Seller delivers reused, counterfeit, or suspect products for a United States government customer, the Buyer will impound these products, and turn them over to the government customer. At the Buyer's request, the Seller shall return any unused counterfeit parts to the Buyer for turn-in to the Customer. The Buyer shall hold the Seller fully liable for any and all indirect, special, or consequential costs arising from delivery of counterfeit parts, including shipping, storage, testing, and replacement costs. The Buyer and Seller agree that any government or quasi-government directive, such as a GIDEP alert indicating that such parts are counterfeit, shall be acceptable evidence that the Seller's product contains counterfeit parts. The Seller has no liability if parts are determined to be authentic.

- 27. Suspect/Counterfeit Item Mitigation (SCIM)** – The Seller shall maintain a counterfeit parts control plan complying with the requirements of AS5553 Counterfeit Electronic Parts, Avoidance, Detection, Mitigation and Disposition. If the Seller incorporates parts that come from distributors not authorized by the OEM, then prior to delivery the Seller must request pre-approval of such material from the Buyer in accordance with Customer requirements.

- 28. Conflict Minerals from Conflict Region** – The seller shall deliver products to the Buyer that do not contain tantalum, tin, tungsten or gold (3TG) as elements necessary to their production or functionality, or, if products delivered to the Buyer do contain these minerals, the minerals must originate outside the Democratic Republic of Congo and nine adjoining countries: Republic of Congo, Central Africa, South Sudan, Zambia, Angola, Tanzania, Burundi, Rwanda and Uganda. These minerals shall come from scrap or recycled sources, or be supplied from smelters that have been validated by an independent private sector party to be conflict-free. To review related documents go to jemengineering.com: [Policy Statement on Conflict Minerals](#) (709-0083-000) and [Conflict Minerals Mines Compliance Declaration](#) (714-0036-000).



Section III: Optional QPRs

The following Quality Clauses (QPRs #1-12) apply if specifically referenced in the terms or notes of the contract between the Buyer and Seller.

1. **Evidence of Inspection** – A qualified representative of the Seller’s quality department shall sign and document acceptance status for each shipment as evidence of 100% inspection. Sampling inspection shall not be performed without prior written approval from the Buyer and the Customer.
2. **First Article Inspection (FAI)** – The Seller shall provide a completed inspection report/record with the first shipment, as evidence of 100% inspection of all inspect-able features of one unit from the first shipment. The Seller shall segregate the first article unit from any other units in the initial shipment. The Seller shall submit FAI report for the Buyer review prior to the complete production of the contract. The Seller shall fabricate the first article unit using the same production equipment, procedures, and processes that will be used in filling the contract. The Seller shall record all inspection measurements and/or test data on a document normally used by the Seller or by the Buyer to record inspection test results. The FAI documentation submitted shall reference the Buyer’s purchase order/contract number thereon and must accompany the delivery of each first article unit delivered. Documentation for each first article item shall include:
 - a) Inspection Report(s), with actual dimensions recorded.
 - b) Mill report(s) or certifications of material for all raw materials, as specified.
 - c) Certifications of heat treatments, as specified.
 - d) Certifications of finishes and pre-treatments, as specified.
 - e) Test Report(s), including material hardness or strength testing, with actual test results recorded.
 - f) A Certificate of Conformance referencing the part number, revision, and purchase order number.
3. **First Piece Inspection (FPI ____)** – A FPI is required under the purchase order. It is the Seller’s responsibility to conduct a FPI on some number (pre-determined by the Buyer) of the first pieces delivered under this order, to verify conformance of all physical, chemical, and test requirements specified by this order. Upon completion of the inspection, the Seller shall notify the Buyer. The Buyer shall verify objective evidence of this requirement prior to the Seller commencing shipments on this order. A five (5) day notice shall be required for scheduling verification.
4. **Test Reports** – The Seller shall submit a copy of actual physical and/or chemical test reports for all units shipped, and each test report must be traceable to the unit/pieces shipped. Any reprocessed raw material must be traceable to the original test report and must include objective evidence of compliance (e.g., mechanical tests) to the reprocessed condition of the material. Seller shall submit copies of the test reports with each shipment, referencing each lot, batch, or heat used to fill the shipment order. When the Buyer provides material, the Seller must ensure that a statement is included on the shipment certification and/or shipper identifying that the Buyer supplied the material. Functional and/or qualification test results listing all parameters tested and actual



readings taken during this test are required with the delivery of the material covered by the purchase order/subcontract. These reports shall reference the part number, revision level, serial number (if required) and the purchase order/subcontract number.

5. **Electrical & Electronic Assemblies Workmanship (IPC)** – When the product or service from the Seller includes electronic or electrical components or assemblies, including printed circuit boards or printed wiring assemblies, the Seller shall use and maintain proven fabrication procedures and manufacturing processes for producing quality electronic products IAW IPC/EIA J-STD-001 and IPC A-610, for classification indicated by the Buyer (Class 1, 2, or 3).
6. **Raw Material Test Specimens (RM)** – Items delivered under this order shall be accompanied by raw material test specimens. Specimens shall be submitted with the initial shipment from each lot or processing batch of items to be delivered under this order.
7. **Foreign Object Elimination (FOE)** – The material that is supplied on the purchase order shall be manufactured in an environment that is free of foreign objects. Material supplied shall be free of foreign objects. The intent of this quality note is not to necessarily change manufacturing processes but to maintain continual awareness of the need to eliminate foreign objects for all supplied material.
8. **MRB Authority (MRB Level ____)** – Material Review Board is designated for a specific authorization level (as described). The Seller must receive approval from the Buyer prior to disposition of nonconforming material or product purchased under the purchase order/Subcontract.
9. **Product and Data Export Restrictions (EAR, ITAR)** – Seller shall not provide any drawings, models, prototypes, or JEM-supplied parts or services associated with the purchase order to any person or agency outside of the United States, including foreign employees or contractors working in the United States without the express permission of the Buyer and the Customer.
10. **Right of Entry (ROE-All)** – The Seller shall permit the Buyer, the Customer, government agencies that represent the intended users, and applicable regulatory agencies shall be allowed the right of entry to determine and verify the quality of work, records and material at any place, including the facilities of any subcontractors on this contract. This includes Buyer conducting audits at Seller's facilities.
11. **Source Inspection (SI)** – Source inspection is required prior to shipment from your facility. Upon request, Seller shall provide personnel and equipment to assist the Buyer's representative during inspection of items. On site product acceptance by the Buyer and/or customer representatives does not absolve the Seller of the responsibility to provide acceptable product, nor shall it preclude subsequent rejections by the Buyer.
12. **Buyer Control of Special Processes (SP)** – The Seller shall identify all special processes and any sub-tier providers of special processes, and obtain approval of the Buyer to control these special processes and his sub-tier's special processes. After approval, the Seller and sub-tier suppliers and their special processes are subject to re-audit or recertification at the discretion of the Buyer.



Section IV. Acknowledgement

The Seller shall validate that it intends to meet all mandatory QPRs (Section II) and optional QPRs (Section III) called out in specific purchase orders as the QPRs apply to the Seller's products or services by signing the JEM purchase order. If the Seller cannot meet every one of the applicable requirements, the Seller shall inform the Buyer prior to agreeing to the purchase order.

The Seller acknowledges receipt, acceptance, and understanding of the above JEM Engineering purchase order Quality Clauses. The Buyer may consider this acknowledgement a requirement for doing business with the Seller. Email a signed copy of the purchase order to purchasing@jemengineering.com or fax a copy for 301-317-8683. Emailed documents are processed faster than faxed documents.