



<b>Precision Mold and Tool Government Division</b>	<b>QMSP-1010 Supplier Quality Assurance Requirements</b> Rev. 11.0 Effective date: 07/13/2017	Page 1 of 15
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## SUPPLIER QUALITY ASSURANCE REQUIREMENTS AND QUALITY CLAUSES

### PURPOSE

To establish the Supplier quality requirements applicable to procured materials / products / services ordered under a contract / purchase order issued by Precision Mold & Tool Government Division.

To establish specific flow down Quality Assurance Clauses applicable to the procured materials / products / services.

### DEFINITIONS AND ABBREVIATIONS

- 1) *PMT* - Precision Mold & Tool Government Division.
- 2) *Supplier* - The person(s) and/or Company/Corporation providing goods and or services to PMT. Note: The terms External Provider, Supplier and Vendor are used interchangeably at Precision Mold and Tool.
- 3) *Contract* - The Contract, Sub-Contract, Purchase Order or other written agreement between PMT and the Supplier.
- 4) *Product* - The result of activities or processes. A product shall include, but not be limited to: services, hardware, software, processed material, or a combination thereof.
- 5) *PO* - Purchase Order issued by PMT.
- 6) *NIST* - National Institute of Standards and Technology.
- 7) *DOD* - Department of Defense.

### GENERAL REQUIREMENTS

Unless otherwise specified in the Contract, all of the following general requirements apply to a contract issued to a Supplier by PMT.

#### **A. Purchase Order Receipt and Verification:**

The Supplier shall verify all purchase orders issued by PMT upon receipt. Any discrepancies in price, quantity, specifications, quality requirements, packaging, or delivery requirements shall be communicated to and resolved with PMT purchasing before taking action on the purchase order. Upon acceptance and during the performance of the purchase order, suppliers shall flow down of all the PMT issued purchase order requirements to their sub-tier suppliers. The Supplier shall return a signed copy of the purchase order to PMT.

#### **B. Delivery:**

PMT expects 100% on time delivery. Deliveries are considered on time, if the required product, as specified on the purchase order, is received on the due date or up to 30 days early. The Supplier shall notify PMT before the delivery date whenever a delivery date will not be met. Standard receiving hours are between 7:00 AM and 5:30 PM, (CST) Monday through Thursday, announced holidays excluded. Deliveries will not be accepted outside of these hours unless specific arrangements have been made and approved by PMT Purchasing Department. Applicable documents, such as, packing lists, certification of conformance, certificates of analysis, material data safety sheets, etc., shall arrive with, or prior to receipt of the shipment.

#### **C. Conformance to Requirements:**

PMT expects all materials and components to arrive defect free. "Zero Defects" must be the standard for all Suppliers to PMT. Product is expected to meet all purchase order and referenced engineering specifications unless arrangements have been agreed upon between PMT Purchasing, Engineering, and Quality Assurance as necessary and the Supplier, in writing prior to shipment.



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**D. Unauthorized Repairs:**

Suppliers shall not repair products damaged or found to be faulty during fabrication by any method including, but not limited to, welding, brazing, plugging, soldering or use of adhesives, nor repair by any method, defect in castings or forgings, unless authorized by PMT in writing.

**E. Unauthorized Change in Processes, Materials or Specifications:**

Suppliers shall not substitute or change any processes, materials or specifications as defined on the purchase order without prior PMT approval. Specification(s) / Standards listed on the purchase order shall be of the latest current revision status available unless identified on the purchase order.

NOTE: Unless otherwise specified, use of superseding Industry or Military Standard Specifications shall be acceptable provided a notice of cancellation and/or supersession can be obtained by PMT as verification.

**F. Proper Submittal of Documentation:**

Adequate records of inspections and tests shall be maintained through the use of tags, data sheets, etc. Test results shall be recorded. Actual inspection readings shall also be recorded, when required by the PO. Copies of this data shall be maintained on file and supplied to PMT upon request. PMT may refuse to accept products under this contract if the Supplier fails to submit the certification, documentation, test data or inspection data as specified on the PO.

**G. Responsibility of Product Conformance:**

Neither surveillance, inspection and / or test made by PMT, their representatives, or Government Source Inspectors at either the Supplier's or PMT facility, nor the Supplier's compliance to all applicable quality assurance requirements shall relieve the Supplier of the responsibility to furnish products, which conform to the requirements of the contract.

**H. Improper Submittal of Previously Rejected Products:**

Product previously rejected by PMT and reworked or replaced by the Supplier, shall be identified in the shipping documents with reference to the PMT nonconforming material report (NCRM) number and shall have new certification documents with the shipment of the returned product. Failure to identify previously rejected product may be cause for rejection and return of the material at the Supplier's expense.

**I. Notification of Change:**

The Supplier shall notify PMT in writing of all process, design, fabrication, testing, facilities and material changes affecting the form, fit, function, reliability or interchangeability of end item specification or drawing requirements during the performance of this contract. The Supplier shall afford PMT, an opportunity to examine such changes for compliance to the contractual Quality Assurance Requirements including any necessary approvals. Failure to notify PMT may result in removal from the PMT approved Suppliers list.

**J. Access to the Suppliers Facility:**

PMT and PMT's customer's representative(s) and Government representative(s) reserve the right to access the Supplier's facility and their lower-tier Suppliers, to assure that the Supplier's product(s) complies with the requirements of the contract issued to the Supplier. PMT quality assurance representative(s), customer's representative(s) and Government representative(s) reserve the right to audit and approve and/or disapprove potential Suppliers and their lower-tier Suppliers prior to award of a contract.



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**K. Clarifications:**

The Supplier shall have a clear understanding of the requirements before proceeding with the execution of a contract issued by PMT. The Supplier shall document in writing to PMT necessary clarifications. The Supplier shall agree that PMT's written response provides adequate clarification.

**L. Conflicts:**

In the event of conflicts between the requirements of this document and applicable product specifications, engineering drawings or regulatory standards, the latter documents shall govern.

**M. Nonconforming Material:**

The Supplier shall establish and maintain an effective and positive system for controlling nonconforming or defective materials pertaining to the identification, segregation, and disposition of such materials. Prompt action to correct assignable conditions contributing to non-conformances is recommended as part of the inspection system. Non-conforming product shall be reworked to the original drawing / specification requirement or replaced; no repair or use-as-is disposition is allowed without the written approval of PMT. When product is rejected at PMT and returned to the Supplier for replacement or rework, the return of the product shall be identified on the packing list with the Nonconforming Material Report (NCMR) Number issued by PMT. All applicable quality documents and certifications shall be submitted with the return of the replacement / reworked product. The Supplier shall notify PMT of any nonconforming product prior to shipment and the nonconforming material, if dispositioned for shipment to PMT, shall be identified and packaged separately from conforming products. The Suppliers packing list shall identify the correct quantity of nonconforming and conforming product on separate lines.

**N. ISO / AS Certified Quality System and NADCAP Processes Approvals:**

Suppliers certified to an ISO, AS, NADCAP and/or equivalent regulatory standard shall notify PMT immediately if that certification / accreditation was not renewed or was revoked.

**O. Quality Program Requirements:**

The Supplier shall establish and maintain a quality system to the requirements of ISO 9001, AS9100, ISO/IEC 17025, or an equivalent, PMT approved quality system. The Supplier's quality system shall be approved by PMT and is subject to review and approval at all times by PMT. The Supplier retains full responsibility for ensuring that all products, lower-tier Suppliers, supplies used, and/or services furnished hereunder, comply with all applicable requirements of the ISO 9001, AS9100, ISO/IEC 17025 or equivalent approved quality system. A copy of the Suppliers ISO 9001, AS9100, ISO/IEC 17025 or equivalent registration shall be sufficient for compliance to this Supplier quality requirement and shall be supplied to PMT when the registration is renewed. All Suppliers used by PMT shall be identified as "Approved" or "Conditional" and maintained on an approved Supplier listing.

**P. Supplier Rating System:**

Product ordered under a contract issued by PMT is included in PMT's Supplier rating system. The rating system is comprised of the incoming inspection yield and adherence to the PO delivery schedule. The rating system is used as a method of measuring the effectiveness of the Supplier's inspection system and/or control of processes. The Supplier's rating may affect the acceptance of shipments by PMT or future procurements.

**Q. PMT Acceptance at Destination:**

The product(s) ordered under a contract issued by PMT are subject to final acceptance at their destination.



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**R. Domestic Materials / Certificate of Origin:**

Unless otherwise specified in the contract all materials purchased on the order issued by PMT shall be domestic materials and the Supplier shall supply a statement on the raw material certification that the country of origin of the melt is domestic or is a qualifying country as defined in DFAR 225.003 (9). NOTE: Qualifying countries are listed in DFAR 225.872-1

The product(s) ordered under a contract issued by PMT are required to be in compliance with the listed DFAR's as identified:  
 DFAR 225.1101 (2) "Buy American Act" applies {Use the Clause at DFAR 252.225-7001}  
 DFAR 225.1101 {3} "Qualifying Countries Sources" applies {Use the Clause at DFAR 252.225-7002} DFAR 252.225-7014 "Preference for Domestic Specialty Metals" applies (Deviation 2008- 00002)

**S. Record Retention:**

Records for traceability for all products /materials / processes / services and their integral processes required to achieve the end deliverable product or process provided under the performance of a contract issued by PMT shall be maintained and made available upon request by PMT for a minimum of 10 years.

**T. Rejection of Product using Sample Inspection:**

PMT reserves the right to use ASQC Z1.4 or MIL-STD-105 (c)=0 sampling plan for the inspection and acceptance or rejection of goods or services supplied under a contract issued by PMT.

**U. Commercial(Catalog) Items:**

Suppliers providing commercial catalog items through a distributorship shall demonstrate quality program requirements to AS9120 or an equivalent quality program. At a minimum, the Supplier shall provide a certificate of conformance to the requirements as stated on the contract / purchase order with reference to the purchase order number. This C of C provided by the Supplier shall be signed by an official of the Supplier's company for compliance to PMT PO requirements and Supplier catalog specification / standards / drawings as applicable.

**V. Counterfeit Parts Prevention:**

All Suppliers shall guard against the use and delivery of "counterfeit" parts or components to PMT. The supplier shall ensure that only new and authentic materials are used in products or work to be delivered contains no counterfeit parts. A "counterfeit" part is defined as: "A part falsely represented in some manner, e.g., manufacturer, part number, date code, lot code, markings, used, etc." No other material or part, other than a new and authentic part is to be used, unless approved in writing.

To further mitigate the possibility of the inadvertent use of counterfeit parts, the Seller shall only purchase components and parts procured directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM). Regardless of the source of procurement, Supplier must provide OCM/OEM documentation that authenticates traceability of the components to the applicable OCM/OEM.

**W. Competence and Awareness:**

PMT requires all suppliers to ensure their employees are competent, aware of their contribution to product or service conformity, their contribution to product safety and the importance of ethical behavior.



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**QUALITY CLAUSES**

One or more of the following Quality Clauses (QC) are a requirement of the contract / purchase order issued by PMT when specified by number.

**QC 1. CERTIFICATE OF COMPLIANCE**

The Supplier shall submit a Certificate of Compliance stating that the products(s) furnished on this contract conform to the quality assurance requirements, drawings, materials, processes, test specifications and other applicable specifications. The Certificate of Compliance shall accompany each shipment. The Supplier shall have records on file to substantiate product compliance to the contract and will furnish copies of these records upon request of PMT or PMT's customer representative(s). All Certificates of Compliance shall contain the following information, when applicable, and shall be validated by an authorized Supplier's representative, by either an inspection stamp or a signature: Supplier's name and address, PMT PO number, product number, revision level, serial number, heat, lot, batch number, material and/or process specifications, and actual measurements or reference to test inspection documentation as applicable.

**QC 1.1 CERTIFICATE OF COMPLIANCE (Special Process Approved Suppliers)**

For contracts, / purchase orders issued to Suppliers that are designated by PMT customer requirements as "Special Process Approved Suppliers" all of the requirements of QC 1 are applicable and the Supplier and/or lower-tier Supplier shall annotate on the Certificate of Compliance the Suppliers approved processor code.

**QC 2. CONTROL OF SPECIAL PROCESSES**

The Supplier must have on file at their facility, or their sub-tier Supplier's facility chemical and mechanical test data on raw material used on the contract issued by PMT. Processes listed below must satisfy the requirements of applicable drawings and specifications. PMT reserves the right to perform surveillance, review or audit of the Supplier and/or Sub-Tier Supplier's special processes and certification, prior to and during the performance of any contract issued by PMT. Suppliers and sub-tier Suppliers certified by Nadcap for the commodities that they are delivering shall be considered approved and require no further surveillance or audits provided no nonconformance's are detected from their processes. PMT reserves the right to deny the use of lower-tier special process Suppliers if they fail to meet the applicable requirements. All processes performed under the contract issued by PMT shall be performed by the Supplier or if the Supplier is going to outsource any processes they must contact PMT prior to any outsource activity to a sub-tier Supplier for verification of PMT customer approved Supplier status.

Below are the commodities (as defined by Nadcap) and the specific processes that are considered to be special processes at PMT.

Chemical Processing (Platings)	Coatings
Heat Treating	Materials Testing Laboratories
Non-Destructive Testing	Soldering and PWB Fabrication
Welding (Includes Brazing)	Nonconventional Machining and Chem-Milling
Shot Peening	Cleaning- Descaling
Composites	Bonding

**QC 3. CHEMICAL / PHYSICAL TEST REPORTS**

Supplier shall supply actual Chemical and/or Mechanical test data for the material(s) being supplied under the contract issued by PMT. The test report shall state the actual analysis of the material for the chemical and/or mechanical properties, and shall identify as applicable, the material type, grade, temper, material dimensions, heat / lot number, specification(s) and be signed for certification of compliance. The test report shall identify the PMT



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PO number. The test report shall accompany each shipment; failure to provide the required test reports may be cause for rejection of the material and affect the Supplier rating.

**QC 4. FIRST ARTICLE INSPECTION**

PMT's acceptance of a first article inspection (FAI) is required prior to acceptance of production parts, unless otherwise authorized by PMT. The Supplier shall submit the FAI report and identifiable first article product to PMT's inspection department for verification. The Supplier's FAI format shall include, at a minimum, the contract number, product number, revision level, product name, Suppliers name, all drawing requirements (including tolerance), method used to obtain results, actual results of each measurement, pass or fail status of the measurements and proven compliance to each engineering drawing note. *As a guideline AS9102 should be used.* Occurrence of any of the following conditions shall require an additional FAI:

- a) A material, design, tooling and/or process change(s) affects the original first article inspection of the product. An additional FAI is applicable only to those characteristics affected by the change.
- b) The product has not been produced for a period of 18 months.
- c) A change in facilities has taken place.
- d) Damage and subsequent repair to tooling, fixtures, dies or equipment used in the manufacturing process affects the specification parameters or attributes. An additional FAI is applicable only to those characteristics affected by the repair.
- e) A change has been made to the Supplier's proprietary product purchased by PMT or the performance of a higher assembly.

First Article Reports for the items controlled by CAD files shall record actual dimensional data taken by the Supplier to confirm conformance to the CAD file. The Supplier must indicate any operations not performed using the CAD file.

**QC 5. SOURCE INSPECTION**

PMT will perform final inspection and or witness acceptance tests at the Supplier's facility prior to shipment of product under the contract issued by PMT. The Supplier shall notify PMT's purchasing department at least five (5) working days prior to the date that source inspection is required. If PMT waives source inspection, the inspection waiver must accompany the shipment.

**QC 5.1. GOVERNMENT SOURCE INSPECTION (GSI)**

Government inspection of the purchased product is required prior to shipment from the Supplier's facility. Upon receipt of this contract, the Supplier shall promptly notify the Government representative(s) who normally services the Supplier facility to establish the plan for GSI. GSI applies to prime & returned material.

**QC 6. AGE CONTROL OF RUBBER PRODUCTS**

O-Ring packaging and shelf life unit packaging per MIL-STD-2073-1D, "Standard Practice for Military Packaging" Method 33 is required. Any packaging displaying evidence container, bag, etc., being stapled shall result in the o-ring being scrapped at the Supplier's expense. Each unit package shall be marked

Per MIL-STD-129, "Military Marking" and include the following information:

- Part Number
- Material Specification (if different from the part number)
- Cure and Expiration Dates
- Material Batch Identification

Unless otherwise specified, the requirements of MIL-STD-413 "Visual Inspection Guide for Elastomeric O- Rings" apply. O-Rings must meet the requirements of SAE ARP5316, "Storage of Elastomeric Seals and Seal Assemblies". O-Rings shall not be furnished to PMT if more than 25% of the shelf life has expired.



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**QC 7. TIME AND TEMPERATURE SENSITIVE MATERIAL**

The certification must include manufacture date, expiration date, temperature storage conditions and handling requirements, when applicable, must be included in the documentation with each shipment. Storage temperature requirements other than ambient 25° +/- C shall be marked on the outermost shipping container. Seventy five percent (75%) of shelf life shall remain at time of receipt at PMT facility.

**QC 8. MATERIAL SAFETY DATA SHEET (MSDS) / TOXIC SUBSTANCES CONTROL ACT (TSCA)**

The Supplier shall furnish one (1) copy of the MSDS with each shipment of product under the contract issued by PMT. The Supplier shall certify that all chemical substances delivered under this contract are on EPA's TSCA inventory and comply with all applicable rules and orders under TSCA.

**QC 9. PACKAGING**

The Supplier is responsible for ensuring that product is packaged and preserved in container(s), bags, boxes, crates, as applicable for the type of product to prevent damage and/or deterioration. Each item shall be packaged individually and identified with the following information: (by label or tag)

- Part Number
- Revision Level
- Purchase Order Number
- Serial Number
- Lot Number (if applicable)
- Cure Date (if applicable)

For those items where individual packaging is not practical (such as with electronic discrete components, MIL-SPEC or NAS nuts / bolts / screws, or other commercially available bulk packaged items) the packaging must also show the quantity of item contained in addition to the items listed above.

The Supplier shall provide a packing slip(s) with the items that states the above information and has the Suppliers name and address. If required, the country of origin, as required by "R" (Supplier quality requirement), shall also be marked on the packaging and the packing slip shipping document.

Do not combine items from different purchase orders in the same shipping container or on the same packing slip.

All items received at PMT must have shipping documentation or may be refused and returned to the Supplier at the Supplier's expense.

**QC 10. TEST REPORTS**

Actual test data of indication of pass / fail test results shall accompany each shipment. The Supplier's format is acceptable and shall reference the contract number, Suppliers name and address and/or the name and address of the independent laboratory, product number, serial number or lot number if applicable, and the date of the test. An authorized Supplier representative shall validate all submitted reports, by either an inspection stamp or signature.

**QC 11. INSPECTION / TEST DATA**

The Supplier shall perform in-process and final inspection and/or test of the product as applicable to validate compliance of the product to the required drawings, specifications or regulatory standards as defined on the contract issued by PMT. Evidence of the inspection and/or test shall be documented in the Supplier's format and be maintained by the Supplier. PMT may request copies of the inspection /test data to be provided at the time of shipment, or within the retention period of "S" (Supplier quality requirements).



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**QC 12. CALIBRATION SYSTEM**

The Supplier's calibration system for measuring and test equipment shall be in accordance with the requirements of ANSI/NCSL Z540-1 or ISO 17025 Calibration Systems. The Supplier's Calibration System standards shall be traceable to NIST. The Supplier's Calibration System is subject to review and approval by PMT and PMT's customer representative(s) and/or Government representative(s) at all times. The Supplier retains full responsibility for ensuring that all products, lower-tier Suppliers, supplies used, and/or services furnished hereunder, comply with all applicable calibration requirements. A copy of the Suppliers current ISO 9001 or AS9100 registration, if available, shall be sufficient for compliance to this provision.

**QC 13. PRODUCT TRACEABILITY**

Products furnished under a contract issued by PMT must be identified by lot number, material type, specification and revision level and be traceable to the original manufacturer. The traceability documentation and/or records shall accompany each shipment.

**QC 14. LOT CONTROL**

Products furnished under a contract issued by PMT must be identified by the manufacturing lot or batch number. The lot or batch number shall be identified on tags or labels and attached to the product or product container. All accompanying documentation such as packing list, certifications, inspection / test reports shall include the lot control number.

**QC 15. SERIALIZATION**

Each product furnished on this contract shall be identified by a unique serial number. When specific serial numbers are required, they shall be identified by PMT. All inspection and/or test reports and all other applicable documentation shall be traceable to each serial number.

**QC 16. MATERIAL COUPON**

The Supplier shall submit a coupon or slug for destructive testing /verification of material, by PMT. The coupon or slug must be from the same raw material lot and processed in the same loads or batches that were used for fabrication of the product.

**QC 17. SAMPLING INSPECTION**

The Supplier may use a sampling inspection plan that meets the requirements of ASQC Z1.4 or MIL-STD-105 (c)=0 sampling plan during the inspection of the product. The sampling plan used must not allow acceptance of any product with known defects. Any defects identified shall be 100% inspected on all products, work in process and stock inventory for the specific defect.

**QC 18. CORRECTIVE ACTION**

If the Supplier is issued a request for Corrective Action, the Supplier shall complete the applicable sections of the corrective action report to include: Root Cause, Immediate action, corrective action and verification of the corrective action. The corrective action report must be signed by an authorized representative of the company and returned to PMT within the response due time frame. If the Supplier requires more time to identify and implement corrective actions the Supplier must contact PMT purchasing and request an extension of the response due date. Failure to reply to a request for corrective action may affect the Supplier's approval status and/or future procurements.



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**QC 19. CONTROL OF NONDESTRUCTIVE TESTING**

Testing shall be in accordance with all purchase order and applicable specification requirements. Unless otherwise specified:

Dye Penetrant inspection shall be performed in accordance with ASTM E1417. The penetrant inspection report shall identify the procedure and method used the acceptance criteria, part number, PO number, and the result of the inspection. The report shall contain the name of the person performing the inspection and shall be signed and dated. When parts are serialized, serial numbers must appear on the report with the control number. Penetrant inspection shall only be performed by a level II or III technician as certified by NAS 410 or ASNT SNT-TC-1A. The penetrant inspection report shall be furnished with each shipment.

Radiographic inspection shall be performed in accordance with ASTM E1742. Individual radiographs shall be traceable to the corresponding product(s). When parts are serialized, serial numbers must appear on the report and film with the control number. The radiographic inspection report shall identify the procedure and method used the acceptance criteria, part number, PO number, and the result of the inspection. The report shall contain the name of the person performing the inspection and shall be signed and dated. Radiographic inspection shall only be performed by a level II or III technician as certified by NAS 410 or ASNT SNT-TC-1A. The radiographic inspection report and X-ray films shall be furnished with each shipment.

Magnetic Particle inspection shall be performed in accordance with ASTM E1444. The magnetic particle inspection report shall identify the procedure and method used the acceptance criteria, part number, PO number, and the result of the inspection. The report shall contain the name of the person performing the inspection and shall be signed and dated. When parts are serialized, serial numbers must appear on the report with the control number. Magnetic particle inspection shall only be performed by a level II or III technician as certified by NAS 410 or ASNT SNT-TC-1A. The magnetic particle inspection report shall be furnished with each shipment.

Ultrasonic inspection shall be performed in accordance with ASTM E2375 and/or ASTM 8594. The ultrasonic inspection report shall identify the procedure and method used the acceptance criteria, part number, PO number, and the result of the inspection. The report shall contain the name of the person performing the inspection and shall be signed and dated. When parts are serialized, serial numbers must appear on the report with the control number. Ultrasonic inspection shall only be performed by a level II or III technician as certified by NAS 410 or ASNT SNT-TC-1A. The ultrasonic inspection report shall be furnished with each shipment.

**QC 20. ELECTROSTATIC DISCHARGE SENSITIVE (ESDS) PRODUCTS**

The Supplier is responsible for ensuring that the product is manufactured, tested, identified, and handled in accordance with MIL-STD-1686, EIA-JESD-625-A or equivalent. The Supplier shall maintain an ESDS program in accordance with MIL-STD-1686, MIL-HDBK-263, EIA-JESD-625-A or equivalent and shall include procedures, personnel training records, and calibration of ESDS testing equipment.

**QC 21. WORKMANSHIP**

Workmanship shall be in accordance with the drawing requirements, specifications and any requirements of the detail equipment specification applicable to manufacturing, processing, marking of parts and assemblies, wiring, soldering, welding and brazing, plating, riveting, finishing, machine operations and shall be reviewed for the detection and removal of foreign objects to include product to be free from burrs, sharp edges, tooling marks, mismatch conditions, warped and/or bowed conditions or any other damage or defect that could make the product or equipment unsatisfactory for the intended purpose.

**QC 22. DPD / MBD: DIGITAL PRODUCT DEFINITION / MODEL BASE DEFINITION**

Suppliers performing process operations that include Digital Product Definition and/or Model Base Definition from datasets supplied by PMT shall have process controls that meet the requirements of PMT Quality Procedure- QP



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4.0.3. Supplier shall have a documented Quality Plan for DPD / MBD process controls. The Supplier Quality Plan will be reviewed and approved or disapproved by PMT QA prior to any order placement.

NOTE 1: PMT will ensure the Supplier can view the annotation, flow DPD/MBD information to manufacturing and inspection, perform a complete AS9102 FAI and have training in place.

NOTE 2: PMT will ensure the Supplier is in compliance with ITAR / EAR and any PMT customer contract requirements prior to approval and release of DPD/MBD datasets.

**QC 23. FOREIGN OBJECT DEBRIS/DAMAGE (FOD) PREVENTION**

The Supplier shall establish and maintain an effective FOD prevention program to control and eliminate FOD and/or contamination assuring work is accomplished in a manner preventing foreign objects or material from entering and remaining in deliverable products. The Supplier's program shall utilize effective FOD prevention practices. NAS 412 may be used as a guide to establish and implement the Supplier's FOD program.

Maintenance of the work and control of tools, parts, and materials shall preclude the risk of FOD incidents. Prior to closing inaccessible or obscured areas and compartments during assembly, the Supplier shall inspect for foreign objects/materials. The written procedures or policies developed by the Supplier shall be subject to review and audit by Precision Mold & Tool Government Division. Quality Assurance and approved or disapproved when the Supplier's procedures or policies do not accomplish their objectives.

**QC 24. CUSTOMER / GOVERNMENT FURNISHED TOOLING PROPERTY**

Suppliers performing process operations that include Customer / Government furnished tooling property supplied by PMT shall have process controls that meet the requirements of PMT Quality Procedure- QP7.0.5. Suppliers who perform contractual process requirements shall complete the form per Standard Procedure- SP 7.0.002, PMT-201, Appendix A. Form PMT-201, Appendix A will be reviewed and approved or disapproved by PMT QA prior to any Customer / Government furnished tooling property leaving PMT. Supplier shall also assure that process controls are applicable to D950-11059-1, D33200-1 and/or D6-51991 requirements.

**QC 25. BUY AMERICAN AND BALANCE OF PAYMENTS PROGRAM / DFAR CLAUSE 252.225-7001**

Supplier is responsible for ensuring that products are manufactured or fabricated in compliance with DFAR 252.225-7001, Buy American and Balance of Payments Program. See [www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html](http://www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html) for current version.

(a) *Definitions.* As used in this clause—

“Commercially available off-the-shelf (COTS) item”—

- (i) Means any item of supply (including construction material) that is—
  - (A) A commercial item (as defined in paragraph (1) of the definition of “commercial item” in section 2.101 of the Federal Acquisition Regulation);
  - (B) Sold in substantial quantities in the commercial marketplace; and
  - (C) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and
- (ii) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

“Component” means an article, material, or supply incorporated directly into an end product.

“Domestic end product” means—

- (i) An unmanufactured end product that has been mined or produced in the United States; or
- (ii) An end product manufactured in the United States if—
  - (A) The cost of its qualifying country components and its components that are mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. The cost of components includes transportation costs to the place of incorporation into the end product and U.S. duty (whether or not a duty-free entry certificate is issued). Scrap generated, collected, and prepared for processing in the United States is considered domestic. A component is considered to have been mined, produced, or manufactured in the United States (regardless of its source in fact) if the end product in which it is incorporated is manufactured in the United States and the component is of a class or kind for which the Government has determined that—



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(1) Sufficient and reasonably available commercial quantities of a satisfactory quality are not mined, produced, or manufactured in the United States; or

(2) It is inconsistent with the public interest to apply the restrictions of the Buy American statute; or

(B) The end product is a COTS item.

“End product” means those articles, materials, and supplies to be acquired under this contract for public use.

“Foreign end product” means an end product other than a domestic end product.

“Qualifying country” means a country with a reciprocal defense procurement memorandum of understanding or international agreement with the United States in which both countries agree to remove barriers to purchases of supplies produced in the other country or services performed by sources of the other country, and the memorandum or agreement complies, where applicable, with the requirements of section 36 of the Arms Export Control Act (22 U.S.C. 2776) and with 10 U.S.C. 2457. Accordingly, the following are qualifying countries:

Australia  
Austria  
Belgium  
Canada  
Czech Republic  
Denmark  
Egypt  
Estonia  
Finland  
France  
Germany  
Greece  
Israel  
Italy  
Japan  
Luxembourg  
Netherlands  
Norway  
Poland  
Portugal  
Slovenia  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom of Great Britain and Northern Ireland.

“Qualifying country component” means a component mined, produced, or manufactured in a qualifying country.

“Qualifying country end product” means—

(i) An unmanufactured end product mined or produced in a qualifying country; or

(ii) An end product manufactured in a qualifying country if—

(A) The cost of the following types of components exceeds 50 percent of the cost of all its components:

(1) Components mined, produced, or manufactured in a qualifying country.

(2) Components mined, produced, or manufactured in the United States.

(3) Components of foreign origin of a class or kind for which the Government has determined that

sufficient and reasonably available commercial quantities of a satisfactory quality are not mined, produced, or manufactured in the United States; or

(B) The end product is a COTS item.

“United States” means the 50 States, the District of Columbia, and outlying areas.

(b) This clause implements 41 U.S.C chapter 83, Buy American. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for an end product that is a COTS item (see section 12.505(a)(1) of the Federal Acquisition Regulation). Unless otherwise specified, this clause applies to all line items in the contract.

(c) The Contractor shall deliver only domestic end products unless, in its offer, it specified delivery of other end products in the Buy American—Balance of Payments Program Certificate provision of the solicitation. If the Contractor certified in its



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offer that it will deliver a qualifying country end product, the Contractor shall deliver a qualifying country end product or, at the Contractor's option, a domestic end product.

(d) The contract price does not include duty for end products or components for which the Contractor will claim duty-free entry.

(End of clause)

### QC 26 FAR / DFAR flow down requirements pertaining to U.S. government orders.

Orders placed in support of a US government contract the Supplier is responsible for ensuring that applicable FAR/DFAR are complied with. The FAR/DFARS flow down clauses are listed at [www.pmtgov.com/about-pmt/quality-control](http://www.pmtgov.com/about-pmt/quality-control)

### QC 27 QUALIFYING COUNTRY SOURCES AS SUBCONTRACTORS / DFARS CLAUSE 252.225-7002

Supplier is responsible for ensuring that products are manufactured or fabricated in compliance with DFAR 252.225-7002, Qualifying country sources as subcontractors. See [www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html](http://www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html) for current version.

(a) *Definition.* "Qualifying country," as used in this clause, means a country with a reciprocal defense procurement memorandum of understanding or international agreement with the United States in which both countries agree to remove barriers to purchases of supplies produced in the other country or services performed by sources of the other country, and the memorandum or agreement complies, where applicable, with the requirements of section 36 of the Arms Export Control Act (22 U.S.C. 2776) and with 10 U.S.C. 2457. Accordingly, the following are qualifying countries:

Australia  
Austria  
Belgium  
Canada  
Czech Republic  
Denmark  
Egypt  
Estonia  
Finland  
France  
Germany  
Greece  
Israel  
Italy  
Japan  
Luxembourg  
Netherlands  
Norway  
Poland  
Portugal  
Slovenia  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom of Great Britain and Northern Ireland.

(b) Subject to the restrictions in section [225.872](#) of the Defense FAR Supplement, the Contractor shall not preclude qualifying country sources or U.S. sources from competing for subcontracts under this contract.

(End of clause)

### QC 28 RESTRICTION ON ACQUISITION OF SPECIALTY METALS / DFARS CLAUSE 252.225-7008



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Supplier is responsible for ensuring that products are manufactured or fabricated in compliance with DFAR 252.225-7008, Restriction on Acquisition of Specialty Metals. See [www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html](http://www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html) for current version.

(a) *Definitions.* As used in this clause—

“Alloy” means a metal consisting of a mixture of a basic metallic element and one or more metallic, or non-metallic, alloying elements.

(i) For alloys named by a single metallic element (e.g., titanium alloy), it means that the alloy contains 50 percent or more of the named metal (by mass).

(ii) If two metals are specified in the name (e.g., nickel-iron alloy), those metals are the two predominant elements in the alloy, and together they constitute 50 percent or more of the alloy (by mass).

“Produce” means—

(i) Atomization;

(ii) Sputtering; or

(iii) Final consolidation of non-melt derived metal powders.

“Specialty metal” means—

(i) Steel—

(A) With a maximum alloy content exceeding one or more of the following limits: manganese, 1.65 percent; silicon, 0.60 percent; or copper, 0.60 percent; or

(B) Containing more than 0.25 percent of any of the following elements: aluminum, chromium, cobalt, molybdenum, nickel, niobium (columbium), titanium, tungsten, or vanadium;

(ii) Metal alloys consisting of—

(A) Nickel or iron-nickel alloys that contain a total of alloying metals other than nickel and iron in excess of 10 percent; or

(B) Cobalt alloys that contain a total of alloying metals other than cobalt and iron in excess of 10 percent;

(iii) Titanium and titanium alloys; or

(iv) Zirconium and zirconium alloys.

“Steel” means an iron alloy that includes between .02 and 2 percent carbon and may include other elements.

(b) Any specialty metal delivered under this contract shall be melted or produced in the United States or its outlying areas.

(End of clause)

## QC 29 RESTRICTION ON ACQUISITION OF CERTAIN ARTICLES CONTAINING SPECIALTY METALS / DFARS CLAUSE 252.225-7009

Supplier is responsible for ensuring that products are manufactured or fabricated in compliance with DFAR 252.225-7009, Restriction on Acquisition of Certain Articles Containing Specialty Metals. See [www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html](http://www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html) for current version.

(a) *Definitions.* As used in this clause—

“Alloy” means a metal consisting of a mixture of a basic metallic element and one or more metallic, or non-metallic, alloying elements.

(i) For alloys named by a single metallic element (e.g., titanium alloy), it means that the alloy contains 50 percent or more of the named metal (by mass).

(ii) If two metals are specified in the name (e.g., nickel-iron alloy), those metals are the two predominant elements in the alloy, and together they constitute 50 percent or more of the alloy (by mass).

“Assembly” means an item forming a portion of a system or subsystem that—

(i) Can be provisioned and replaced as an entity; and

(ii) Incorporates multiple, replaceable parts.

“Commercial derivative military article” means an item acquired by the Department of Defense that is or will be produced using the same production facilities, a common supply chain, and the same or similar production processes that are used for the production of articles predominantly used by the general public or by nongovernmental entities for purposes other than governmental purposes.

“Commercially available off-the-shelf item”—

(i) Means any item of supply that is—



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(A) A commercial item (as defined in paragraph (1) of the definition of "commercial item" in section 2.101 of the Federal Acquisition Regulation);

(B) Sold in substantial quantities in the commercial marketplace; and

(C) Offered to the Government, under this contract or a subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(ii) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

"Component" means any item supplied to the Government as part of an end item or of another component.

"Electronic component" means an item that operates by controlling the flow of electrons or other electrically charged particles in circuits, using interconnections of electrical devices such as resistors, inductors, capacitors, diodes, switches, transistors, or integrated circuits. The term does not include structural or mechanical parts of an assembly containing an electronic component, and does not include any high-performance magnets that may be used in the electronic component.

"End item" means the final production product when assembled or completed and ready for delivery under a line item of this contract.

"High performance magnet" means a permanent magnet that obtains a majority of its magnetic properties from rare earth metals (such as samarium).

"Produce" means—

(i) Atomization;

(ii) Sputtering; or

(iii) Final consolidation of non-melt derived metal powders.

"Qualifying country" means any country listed in the definition of "Qualifying country" at [225.003](#) of the Defense Federal Acquisition Regulation Supplement (DFARS).

"Required form" means in the form of mill product, such as bar, billet, wire, slab, plate, or sheet, and in the grade appropriate for the production of—

(i) A finished end item to be delivered to the Government under this contract; or

(ii) A finished component assembled into an end item to be delivered to the Government under this contract.

"Specialty metal" means—

(i) Steel—

(A) With a maximum alloy content exceeding one or more of the following limits: manganese, 1.65 percent; silicon, 0.60 percent; or copper, 0.60 percent; or

(B) Containing more than 0.25 percent of any of the following elements: aluminum, chromium, cobalt, molybdenum, nickel, niobium (columbium), titanium, tungsten, or vanadium;

(ii) Metal alloys consisting of—

(A) Nickel or iron-nickel alloys that contain a total of alloying metals other than nickel and iron in excess of 10 percent; or

(B) Cobalt alloys that contain a total of alloying metals other than cobalt and iron in excess of 10 percent;

(iii) Titanium and titanium alloys; or

(iv) Zirconium and zirconium alloys.

"Steel" means an iron alloy that includes between .02 and 2 percent carbon and may include other elements.

"Subsystem" means a functional grouping of items that combine to perform a major function within an end item, such as electrical power, attitude control, and propulsion.

(b) *Restriction.* Except as provided in paragraph (c) of this clause, any specialty metals incorporated in items delivered under this contract shall be melted or produced in the United States, its outlying areas, or a qualifying country.

(c) *Exceptions.* The restriction in paragraph (b) of this clause does not apply to—

(1) Electronic components.

(2)(i) Commercially available off-the-shelf (COTS) items, other than—

(A) Specialty metal mill products, such as bar, billet, slab, wire, plate, or sheet, that have not been incorporated into COTS end items, subsystems, assemblies, or components;

(B) Forgings or castings of specialty metals, unless the forgings or castings are incorporated into COTS end items, subsystems, or assemblies;

(C) Commercially available high performance magnets that contain specialty metal, unless such high-performance magnets are incorporated into COTS end items or subsystems; and

(D) COTS fasteners, unless—

(1) The fasteners are incorporated into COTS end items, subsystems, assemblies, or components; or

(2) The fasteners qualify for the commercial item exception in paragraph (c)(3) of this clause.



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(ii) A COTS item is considered to be "without modification" if it is not modified prior to contractual acceptance by the next higher tier in the supply chain.

(A) Specialty metals in a COTS item that was accepted without modification by the next higher tier are excepted from the restriction in paragraph (b) of this clause, and remain excepted, even if a piece of the COTS item subsequently is removed (e.g., the end is removed from a COTS screw or an extra hole is drilled in a COTS bracket).

(B) Specialty metals that were not contained in a COTS item upon acceptance, but are added to the COTS item after acceptance, are subject to the restriction in paragraph (b) of this clause (e.g., a special reinforced handle made of specialty metal is added to a COTS item).

(C) If two or more COTS items are combined in such a way that the resultant item is not a COTS item, only the specialty metals involved in joining the COTS items together are subject to the restriction in paragraph (b) of this clause (e.g., a COTS aircraft is outfitted with a COTS engine that is not the COTS engine normally provided with the aircraft).

(D) For COTS items that are normally sold in the commercial marketplace with various options, items that include such options are also COTS items. However, if a COTS item is offered to the Government with an option that is not normally offered in the commercial marketplace, that option is subject to the restriction in paragraph (b) of this clause (e.g. - An aircraft is normally sold to the public with an option for installation kits. The Department of Defense requests a military-unique kit. The aircraft is still a COTS item, but the military-unique kit is not a COTS item and must comply with the restriction in paragraph (b) of this clause unless another exception applies).

(3) Fasteners that are commercial items, if the manufacturer of the fasteners certifies it will purchase, during the relevant calendar year, an amount of domestically melted or produced specialty metal, in the required form, for use in the production of fasteners for sale to the Department of Defense and other customers, that is not less than 50 percent of the total amount of the specialty metal that it will purchase to carry out the production of such fasteners for all customers.

(4) Items manufactured in a qualifying country.

(5) Specialty metals for which the Government has determined in accordance with DFARS [225.7003-3](#) that specialty metal melted or produced in the United States, its outlying areas, or a qualifying country cannot be acquired as and when needed in—

- (i) A satisfactory quality;
- (ii) A sufficient quantity; and
- (iii) The required form.

(6) End items containing a minimal amount of otherwise noncompliant specialty metals (i.e., specialty metals not melted or produced in the United States, an outlying area, or a qualifying country, that are not covered by one of the other exceptions in this paragraph (c)), if the total weight of such noncompliant metals does not exceed 2 percent of the total weight of all specialty metals in the end item, as estimated in good faith by the Contractor. This exception does not apply to high performance magnets containing specialty metals.

(d) *Reserve*

(e) *Subcontracts.*

(1) *Reserve*

(2) The Contractor shall insert paragraphs (a) through (c) and this paragraph (e)(2) of this clause in subcontracts, including subcontracts for commercial items, that are for items containing specialty metals to ensure compliance of the end products that the Contractor will deliver to the Government. When inserting this clause in subcontracts, the Contractor shall—

(i) Modify paragraph (c)(6) of this clause only as necessary to facilitate management of the minimal content exception at the prime contract level. The minimal content exception does not apply to specialty metals contained in high-performance magnets; and

(ii) Not further alter the clause other than to identify the appropriate parties.

(End of clause)