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THE FOLLOWING GENERAL REQUIREMENTS APPLY ON ALL ORDERS

- A. Each certification document and report required shall be in the English language and identified with the following:
 - 1. The PTI Technologies Inc. Purchase Order Number and item number
 - 2. Quantity in shipment – (list of Lot or Serial Numbers)
 - 3. The Part Number and Revision or specification designation of the parts
 - 4. Signature, Title, and date signed of an authorized representative of the issuing organization
- B. The PTI Technologies Inc. Supplier is responsible for identifying certifications from their sub-tier suppliers as necessary to comply with items 1 thru 4 of item A above. The Supplier is responsible to ensure that all certifications furnished by the Supplier, or by the Supplier's sub-tier sources, are complete, legible, reproducible, accurate, and in compliance with all Purchase Order requirements. PTI reserves the right to return all products to the Supplier at Supplier's expense when the certifications are not accurate.
- C. The seller shall maintain a Quality Control System. This system shall be subject to audit by PTI Technologies Inc. representatives.
- D. PTI Technologies Inc. and/or Government or Customer representatives as well as any and all regulatory authorities reserve the right to inspect all work, documents and materials purchased under this Purchase Order or subcontract in the supplier's plant, or any sub-tier suppliers.
- E. By acceptance of this order, seller certifies that materials and/or finished parts will be controlled and manufactured in accordance with, and will meet, specified order requirements and applicable specifications and that applicable records are on file subject to examination.
- F. Any deviation from drawings, specifications, or Purchase Order requirements must be recorded and forwarded to PTI Technologies Inc. for consideration. Disposition of these deviations must be approved by PTI Technologies Inc. prior to production of product and/or shipment.
- G. Seller must return all gauges to PTI Technologies Inc. upon completion of this order or within thirty (30) days of re-calibration date, whichever is sooner.
- H. All parts must be packaged and handled in accordance with best commercial practices to prevent damage or deterioration during shipment and storage.
- J. It is the Supplier's responsibility to ensure current, or as ordered, Blueprint and Specification Revisions are on hand and available prior to performing on this Purchase Order.
- K. UNLESS OTHERWISE NOTED, USE PTI APPROVED PROCESSORS ONLY. Contact PTI Buyer for information.
- L. Software Quality Program per DOD-STD-2168 required, as applicable.
- M. Records containing objective evidence that all products have been manufactured, inspected, tested, and accepted per the PO requirements must be maintained. Minimum retention period is fifteen (15) years unless otherwise specified. Supplier must notify PTI prior to destruction to allow PTI or it's customers to take possession of such records.

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- N. Suppliers must follow Foreign Object Debris/Damage (FOD) Prevention methods. Unless otherwise specified on the procurement documents, the parts must be cleaned to a good commercial practice. The method of cleaning is at the discretion of the Supplier. The following criteria shall apply: Materials or parts are clean when no wet/liquid, oil, grease, flakes, or other contaminating debris and residues are felt or seen with corrected 20/20 vision. If a Kim-Wipe or equivalent is rubbed on the part the visual inspection will also apply to the wipe.
- O. External laboratories that perform material or product inspection or test, or calibration of equipment must either be accredited to ISO/IEC 17025 or a nationally recognized equivalent. If a qualified laboratory is not available for a given piece of equipment, calibration may be performed by the manufacturer.
- P. Suppliers must exercise reasonable caution to ensure that all raw materials used in the fabrication of parts, and the finished goods, are not contaminated with hazardous materials, i.e., residual radioactivity, explosives, unauthorized lead, mercury, etc.
- R. Corrective Action
The Supplier shall:
 - a) Perform problem solving activities utilizing RCCA tools to establish the root cause of nonconformities
 - b) Take appropriate corrective action to eliminate the cause of nonconformities in order to prevent reoccurrence
 - c) Verify that a permanent fix has prevented any further non conformities
 - d) Flow down corrective action requirements to subcontractors / sub-tier suppliers (when applicable)
 - e) Use of an 8D Corrective Action (when applicable)
 - f) Submit RCCA within Ten (10) business days of receipt unless and extension is otherwise provided by PTI Technologies
 - g) PTI Technologies reserves the right to reject any root cause and/or corrective action. If the seller is late in responding to corrective action requests by PTI or if PTI requires subsequent corrective action, PTI reserves the right to withhold acceptance of shipments either at source or destination until Seller corrective action is submitted to PTI's satisfaction.

SPECIFIC REQUIREMENTS

Applicable clauses will be listed on Purchase Order by Clause Number. Paragraph listed on purchase order as QA01 is read as paragraph 1. MIL-I-45208, QA05 is paragraph 5. Age Sensitive Material, QA16 is paragraph 16. Raw Material Certification, etc.

- 1. MIL-I-45208
Adherence MIL-I-45208 "Inspection Systems Requirements" is required for articles on the purchase order.
- 2. MIL-Q-9858
Adherence to MIL-Q-9858 "Quality Program Requirements" is required for articles on this purchase order.
- 3. NHB 5300.4 (1B)
Adherence to NASA Handbook NHB 5300.4 (1B) "Quality Program Provisions" is required for articles on this purchase order.

4. NHB 5300.4 (1C)
Adherence to NASA Handbook NHB 5300.4 (1C) "Quality Inspection" is required for articles on this purchase order.
5. AGE SENSITIVE MATERIAL
Each package of age sensitive material shall be marked with the date of cure, part number, purchases order number, quantity, compound number and manufacturer's identification (if different than part number). Date of cure on "O" Rings shipped to PTI Technologies Inc. shall not be older than is permissible under MIL-STD-1523 (85% remaining shelf life). Synthetic rubber raw materials shall be identified with date of cure, compound, purchase order number, and manufacturer's name. The material on this purchase order shall be identified with the batch number and shelf life. A copy of manufacturers' certification for each batch number must accompany the shipment.
6. CERTIFICATION OF PTI TECHNOLOGIES INC. FURNISHED MATERIAL
Strict accountability of the material furnished for this order must be maintained. A certification stating that the parts were manufactured from the material furnished by PTI Technologies Inc. is required.
7. STATEMENT OF CONFORMITY
Each shipment must be accompanied by one (1) legible and reproducible copy of a Statement of Conformity containing the signature and title of an authorized representative of the Seller stating material applicable specifications cited in the Purchase Agreement. "The Seller certifies that they have inspected the items furnished to the requirements of the drawing and/or specifications and has found them in accordance thereto". Any non-conforming material is segregated and marked showing the details of the discrepancy.
8. FIRST ARTICLE INSPECTION
First Articles are considered to be the first part from each new production run. A First Article Inspection report is a complete record of all drawing characteristics and notes with the actual measurements entered adjacent. When Source Inspection is a Purchase Order requirement, the First Article part and the First Article Report shall be presented together with the parts at the time of Source Inspection. If Source Inspection is not a P.O. requirement, the First Article part and the First Article Reports shall be individually packaged in a container with the balance of the parts when shipped to PTI Technologies Inc.
9. FUNCTIONAL TEST REPORTS
Each shipment must be accompanied by one (1) legible and reproducible copy of actual test results identifiable with test parameters and products submitted. These reports must contain the signature and title of the authorized representative of the agency performing the test and must assure conformance to specified requirements. (Note: Functional tests are identified as operational inspection, e.g., mechanical, electronic, hydraulic, etc.)
10. GOVERNMENT SOURCE INSPECTION
(A) Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify the Government representative who normally services your plant so that appropriate planning for Government Inspection can be accomplished. On receipt of this order promptly furnish a copy to the Government representative who services your plant, or if none, to the nearest Army, Navy, Air Force, or Defense Supply Agency Inspection Office. In the event the representative of office cannot be located, our Purchasing Agent should be notified immediately.

(B) All Work on this order is subject to inspection and test by the Government/Customer at any time and place. The Government/Customer Quality representative who has been delegated NASA Quality Assurance functions on the procurement shall be notified immediately upon receipt of this order. The Government/Customer representative shall also be notified forty eight (48) hours in advance of the time articles or materials are ready for inspection to test.

11. MATERIAL OR PROCESS VERIFICATION SAMPLE

One (1) additional part of a suitable test bar of the same material lot and processed with the parts supplied is required for certification test. This sample shall be identified as a test sample with permanent identification.

12. MATERIAL TRACEABILITY, IDENTIFICATION AND CONTROL

Positive traceability of parts by cross referencing all manufacturing and shipping documents to test reports and certifications for the specific raw material lot from which the parts were manufactured is required.

13. PROCESS CERTIFICATION

Each shipment must be accompanied by one (1) legible and reproducible copy of a certificate containing the signature and title of an authorized representative for all processes used, such as heat treating, welding, surface preparation and treatment, etc. The certificate shall include the processing used, the specifications to which they conform (name, specification number and revision, type, class, PTI Technologies Inc. Purchase Order or drawing) and the name of the agency that performed them if other than the Seller. When parts are serialized, serial numbers must appear on the certification.

14. MERCURY FREE CERTIFICATION

Certification is required that the material supplied has not been in contact with, or exposed to, Mercury in any form.

15. NON-DESTRUCTIVE TESTING

All shipments requiring non-destructive tests shall be accompanied by one (1) legible and reproducible copy of a certified report of actual NDT test (penetrant, magnetic particle, ultrasonic) performed identifiable with acceptance requirements and material submitted (name, specification number and revision, type, method, company procedure number, etc.). These reports must contain the signature and title of the authorized representative performing the inspection and must assure conformance to specification requirements. X-ray findings will be reported on an appropriate form, including the name of the reader and the signature and title of an authorized laboratory representative. The X-ray film and two (2) legible and reproducible copies of the report must accompany the material.

16. RAW MATERIAL CERTIFICATION

(A) Each shipment must be accompanied by one (1) legible and reproducible copy of the material test report for each raw material shipped on the order. The test report shall contain the actual chemical and physical test data and must identify the applicable specifications, nomenclature, type and condition. Material test reports pertaining to shipments made from Aluminum Alloys may reflect maximum/minimum range data for chemical composition provided material composition falls within the specific material specification requirements and actual physical characteristics are contained in the material test report.

(B) Each shipment must be accompanied by one (1) legible and reproducible copy of the material test report for each Aluminum Alloy raw material shipped on their order. The test report data must contain the actual chemical and physical test data and must identify the applicable specification, nomenclature, type and condition.

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17. SELLER CONTROLLED PRODUCTS

Two (2) legible and reproducible copies of applicable specifications, drawings, and/or catalogues are to accompany the initial shipment on this Purchase Order.

18. SOURCE INSPECTION (Physical Inspection)

PTI Technologies Inc. will inspect the materials submitted in the performance of this Purchase Order or subcontract at the Supplier's plant on conformance with PTI Technologies Inc. general specifications for source inspection, applicable test procedures, or inspection instructions, etc. Source inspection approval or acceptance by PTI Technologies Inc. Quality representatives shall not constitute final approval or acceptance by PTI Technologies Inc. of the items covered by this Purchase Order nor shall it relieve Seller of this responsibility to furnish an acceptable item.

19. OBJECTIVE EVIDENCE OF INSPECTION

(A) Supplier must provide a written inspection report on each lot of component parts referencing the PO number, recording quantity of parts in each shipment and quantity inspected per ANSI/ASQ Z1.4, Inspection Level II, AQL 0.65, or as specified in purchase order. Zero reject acceptance must be used, if any part does not meet requirements, the entire lot must be rejected and screened. Data must include the range of measurements taken.

Suppliers of bulk items, chemicals, or rolled material (medias, wire, etc) may supply a copy of their standard inspection data as objective evidence of acceptance.

Distributors may inspect the shipment of parts prior to delivery to PTI, or furnish copies of their incoming inspection data for the lot of parts, inspection quantity must meet the requirements of this paragraph.

(B) Supplier must also provide with each shipment a First Article report on one piece from each production lot listing all dimensional characteristics only and the actual inspection results. The First Article piece may be randomly selected and inspected any time during production run and must be tagged or identified as "First Article" and shipped with lot.

20. STATISTICAL PROCESS CONTROL

(A) Supplier must have First Level SPC approval by PTI Technologies Inc. Quality Assurance Department prior to performing work on this Purchase Order. (See attachment A).

(B) Supplier must have Second Level SPC approval by PTI Technologies Inc. Quality Assurance Department prior to performing work on this Purchase Order. (See attachment B).

21. CUSTOMER APPROVED PROCESSORS

PTI Technologies Inc. Customer Approved Processors must be used for special processes required on this order, either as specified on the blueprints or by this Purchase Order.

22. Deleted

23. 100% INSPECTION REQUIRED

(A) All characteristics produced in accordance with the requirements of the Purchase Order must be inspected on 100% of the product.

(B) All characteristics on 25 consecutive manufactured items shall be 100% inspected for product compliance (prior to utilizing a sample plan).

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24. ISO 9001

Adherence to ISO 9001, "Quality Management System," is required for items on this Purchase Order.

25. SPECIALTY METALS

Preference for Domestic Specialty Metals (ref DFAR 252.225-7014, June 2005), apply to parts and materials on this order. Material must be melted in either the United States or Qualifying Country per DFAR 225.872. Copies of original mill certifications for the applicable specialty metals are required. The certification must list the heat lot number and the country in which the material was melted. Distributors may add a statement of compliance on their C of C; however, records must be available upon request.

26. CLASS 1 SEAL OR GASKET

This part is classified as a Class 1 component and the requirements of PTI Engineering Material Procurement Specification, MPS80301-01, Non-Metallic Seals & Gaskets Aerospace General Use, apply to this order.

27. FIRST ARTICLE INSPECTION PER AS9102

A First Article Inspection Report per AS9102 (current revision), and a bubbled, numbered drawing, must accompany the shipment if not previously furnished, or upon drawing or specification revision change. The first article piece must be identified in the shipment.

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ATTACHMENT A

GUIDELINES FOR SUPPLIER FIRST LEVEL SPC APPROVAL

The FIRST LEVEL APPROVAL shall consist of the following steps:

1. The supplier shall have a working knowledge of all SPC charts used in the manufacture of PTI parts. (IX & MR, X & R, & P charts)
2. When the supplier is unfamiliar or is not trained in the use of these charts, a schedule shall be arranged by the PTI Buyer, SPC Coordinator, and the supplier, to obtain necessary training.
3. The training may be done at PTI or at any accredited school of the supplier's choice, as long as the supplier can demonstrate the job knowledge required by the PTI purchase order or PTI customer purchase order.
4. When the supplier has been trained, a request for certification can be made through the PTI Buyer.
5. A member of the PTI SPC training committee will visit the supplier to survey them for FIRST LEVEL SPC APPROVAL.
6. Once approval has been made, the supplier can then be awarded PTI purchase orders which require SPC compliance.
7. The above procedures must be complied with as a minimum to allow PTI to remain in contract compliance with its customers.
8. The supplier may demonstrate ability to comply with the PTI purchase order requirements by submitting SPC program approvals from any OEM that PTI has contracts or business with (e.g., Boeing D1-9000, McAir "Bronze, Silver, or Gold")
9. Once the supplier has obtained a FIRST LEVEL SPC APPROVAL, the long range plans for the supplier and PTI will be to develop a SPC plan for SECOND LEVEL SPC APPROVAL, which would consist of a pilot program demonstrating all phases of SPC program compliance (e.g., gage r & r, flow plan, control plan, risk analysis).
10. If the supplier fails to comply with the SPC requirements as stated in the PTI purchase order, they may not qualify as a SPC approved supplier and not be allowed to bid on any future PTI purchase orders requiring SPC compliance.

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ATTACHMENT B

GUIDELINES FOR SUPPLIER SECOND LEVEL SPC APPROVAL

The SECOND LEVEL APPROVAL shall consist of the following steps:

1. The supplier shall have a SPC program in place and in use.
2. The SPC program will have as a minimum, procedures written to comply with determining key characteristics, establishing a flow plan, control plan, gage r & r, and which control charts are used.
3. Working examples of the above documents will be utilized to determine the supplier's knowledge and compliance with SPC program requirements.
4. A pilot program can be used to satisfy the above requirements, with full part compliance accomplished by a milestone chart format.
5. After achieving SECOND LEVEL APPROVAL, the supplier will be audited on a lot basis, with approvals continuing based on part performance and control chart information.
6. If the supplier fails to comply with the SPC requirements as stated in the PTI purchase order, they may not qualify as a SPC approved supplier and not be allowed to bid on any future PTI purchase orders requiring SPC compliance.

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REVISION RECORD

EFFECTIVE	REVISED BY	APPROVED BY	REVISION
11-8-10	Initial Record		Rev M – Existing revision prior to creating Revision record for QA-1.
1-4-17	B Blake	J. Young	Rev N – Created Revision Record for QA-1 Added section R “Corrective Action” Added (B) to item 23 “100% inspection”