



General Products, LLC

QUALITY AND RELIABILITY TERMS FOR PURCHASE ORDERS

SECTION I. QUALITY SYSTEM REQUIREMENTS

1. MIL-I-45208A

The vendor shall maintain an inspection system which meets the requirements of MIL-I-45208A, "Inspection System Requirements", with the following modifications; Paragraph 3.6 "Government- Furnished Material", and Paragraph 3.11, "Government Inspection at Sub-Contractor or Supplier Facilities" the term "Government" shall be interpreted to mean Government or General Products, LLC. In all paragraphs other than 3.6 and 3.11, the term "Government shall mean General Products, LLC and the term "Contractor shall mean vendor. An equivalent quality system such as ISO 9000 series maybe substituted provided it is at no additional cost to General Products, LLC.

2. NHB 5300.4 (1C)

The vendor's inspection program shall be in accordance with NASA Quality Publication NHB5300.4(1.C), "Inspection System Provisions for Aeronautical and Space System Material, Parts, Components and Services". Paragraph 1C201 is not applicable to this purchase order unless 0327 Clause 4 is called out. An equivalent quality system such as AS 9100 maybe substituted for NHB5300.4(1.C) provided no additional cost to General Products, LLC.

3. MSFC-STD-781

The vendor's product assurance program shall conform to the requirements of MSFC-STD-781. The vendor shall provide to General Products, LLC, prior to fabrication, a quality control plan, including, a flow chart depicting sequential points for the articles procured, and in addition, a narrative description explaining each of the manufacturing steps/ processes shown in sufficient detail to communicate an understanding of occurring events. Inspection, test, and acceptance points shown shall be explicitly describe including features being examined, special push, pull and other tooling used, nature of documentation generated, use of certified personnel and processes.

4. INSPECTION SYSTEM PLAN

The vendor shall provide to General Products, LLC, prior to fabrication, an Inspection System Plan in accordance with paragraph 1C201 of NHB5300.4(1C), which describes it's system for controlling the quality of the parts/material to be furnished on this procurement. The plan shall be approved by General Products, LLC, prior to fabrication of parts/material.

5. CALIBRATION SYSTEM

The vendor shall have a calibration program meeting the requirements of ANSI/NSCL Z540 or equivalent such as ISO 17025.

6. ACCEPTANCE TEST PROCEDURE

The vendor shall develop separate detailed test procedures which encompass the final acceptance/verification requirements of the specifications listed in the purchase order. This acceptance test procedure, and subsequent changes, shall be approved by General Products, LLC product assurance prior to use.

7. QUALIFICATION TEST PROCEDURE

The vendor shall develop and submit a detailed qualification test procedure which encompass all qualification requirements in the specification listed in the purchase order. This QTP and all subsequent changes shall be approved by GP product assurance prior to use.

8. WELD FILLER METAL CONTROL

Vendor shall require the following information be provided:

- Vendor shall verify adherence to procurement requirements for filler metal upon receipt.
- Mill certification of the weld or wire chemical analysis.
- Identification (stamped, tagged, or equivalent) as to the material alloy of each rod.
- Prior to usage, Vendor shall perform chemical analysis, mechanical analysis, and weldability test to determine the properties required by the filler metal specifications.
- Vendor shall verify that the weld filler metal complies with the engineering specification. Verify acceptable results from quantitative chemical testing and qualitative material alloy identity tests.
- These tests must be verified on each individual heat of weld rod and each reel or spool.
- Filler metals shall be kept in the original sealed containers until immediately prior to use or test and stored in accordance with specification requirements.
- Each weld rod shall be verified by test examination to specified material alloy prior to and at completion of each machine weldment. A unique identification must be placed at the lowest level of control (i.e. wire, package ,tube, etc.) to assure traceability of the 100 percent material alloy verification tests.
- Records of welding filler metal control log shall be maintained by Vendor and available to Buyer.

9. CONFIGURATION CONTROL

The vendor shall be responsible for controlling to parts/components manufactured to GP/vendor drawings and GP/vendor specifications to ensure that the end product meets configuration requirements. With each lot of parts or components shipped, the vendor shall submit a configuration summary record. This record shall include the following.

- a. GP purchase order number and applicable change order number.
- b. Drawing number, revision level and applicable engineering change orders.
- c. Part number, including dash numbers.
- d. Part/Serial numbers or lot numbers, if applicable.

NO Changes in Configuration are permissible without prior Written Approval from GP.

SECTION II. NONDESTRUCTIVE TESTING/SPECIAL PROCESS REQUIREMENTS

10. SPECIAL PROCESS PROCEDURES

The vendor is required to have written processing and process control documentation for items supplied. Special processes are any processes for production and service provision where subsequent monitoring or measurement cannot verify the resulting output. Examples may include, but are not limited to Non-Destructive Test, Chemical or Metallic coatings (e.g.: anodize, passivation),welding, unique or uncommon processes, Radiography, Ultrasonic, Magnetic Particle, Liquid Penetrant, Heat treating, Potting and Molding, Conformal Coating and Environmental Testing. The Vendor shall provide to GP upon request all documentation showing evidence of special processor qualification and / or certification to perform special processing.

10a. Weld qualification samples shall be submitted to GP for evaluation prior to production startup.

10b. Test samples for heat treat, tensile, casting or forging shall be submitted concurrent with the first part/material Shipment.

Note: all samples shall be clearly marked to indicate material, lot or batch control, specification number, manufacturing number and Purchase Order numbers

SECTION III. INSPECTION REQUIREMENTS

11. SURVEILLANCE, SURVEY AND AUDITS

GP reserves the right of access to the extent necessary to assure product conformance, a copy of this purchase order, change order and related correspondence shall be made available to GP's Quality Assurance Representative upon request. The vendor is required to flow down to his sub-vendors and its' customers the right of GP to perform verification at their facilities to the extent necessary to assure product conformance. GP reserves the right to perform periodic surveys and audits of a vendor's facility and to maintain resident Quality Assurance Representatives (QAR) at the vendor's plant.

12. GP SOURCE INSPECTION

GP source inspection is required on this order. All items are subject to in-process surveillance by GP's Quality Assurance Representative (QAR). Shipments shall not be made without source release inspection by GP's QAR. The vendor shall provide a minimum of two (2) working days notice in advance of designated mandatory inspection points. Copies of the purchase order with change orders and related documents shall be made available to the GP QAR upon request.

Note: Source release does not constitute final acceptance, which is performed upon receipt and inspection of the item at the designated GP receiving facility.

13. TEST VERIFICATION

GP Source verification is required for acceptance tests, qualification test and environmental tests performed on items of this procurement. GP's QAR shall be notified a minimum of two (2) working days in advance of scheduled testing. Copies of the purchase order, test procedures and related correspondence shall be made available to the QAR upon request.

14. GOVERNMENT SOURCE INSPECTION

All work on this order is subject to inspection and test by the government at anytime and place. The government Quality assurance Representative who has been delegated Product Assurance functions on this procurement will be notified immediately upon receipt of this order. The Government QAR shall be notified a minimum of two (2) working days in advance of the time articles and materials are ready for inspection or test. Source inspection performed by the Government on procured articles or materials shall not replace or relieve contractor of his responsibility for ensuring the quality of procured articles and materials.

15. OPTIONAL SOURCE INSPECTION

The Government and/or GP's customer reserves the right to inspect any or all work performed on this order at the vendor's facility. In the event the Government or GP's Customer decides to exercise its right to source inspect, the vendor/supplier will be notified in writing a minimum of three (3) working days prior to the inspection at your facility. The organization shall make available all applicable drawings, specifications, procedures, statement of work and/or any information required to satisfactorily perform the inspection.

16. FIRST PIECE INSPECTION/ GP-FIRST PIECE INSPECTION

The vendor is required to perform 100% inspection and recording of actual dimensions inspected for the first piece of the order. The inspection records shall identify actual characteristic inspected, the allowable tolerance limits, and the actual dimension measured. The First Piece Inspection Report must accompany the first parts shipment. The vendor is required to notify GP's QAR five (5) days in advance of schedule s first piece inspection for source witness. Inspection records, described in Clause 17, must show evidence of QAR acceptance and accompany the first parts shipment.

17. FIRST ARTICLE INSPECTION

The vendor is required to perform a first article inspection of part(s) in accordance with AS9100 and AS9102. The Vendor shall provide a process for the inspection, verification and documentation of a representative item from the first production run of a new part, or following any subsequent change that invalidates the previous first inspection results. The vendor shall retain the first article(s) as objective evidence and make available to GP upon request. The vendor is required to deliver the first article piece and paperwork to GP for verification, as part of the Contract / Purchase Order, prior to shipment of any balance of said contract.

18. 100% INSPECTION

The vendor shall perform and record measurable characteristics for each part. This data shall be submitted to the QAR for review prior to each shipment. The record must identify each characteristic and the allowable tolerance limits and show objective evidence that each characteristic has been inspected and accepted for all parts submitted.

19. GENERAL INSPECTION

The vendor shall generate and maintain records and data of all inspections and tests performed. Records shall disclose the status of articles and materials and evidence of inspections and tests performed, including dates. 100 % inspection shall be performed on all critical and major characteristics and interface control points as identified on the drawing. Sampling plans for minor attributes shall conform to MIL- STD-105 or ANSI/ASQ Z1.4, as applicable.

SECTION IV. TESTING REQUIREMENTS

20. PRESSURE / HYDROSTATIC

Prior to any pressure/hydro testing on this purchase order, the vendor shall submit a sketch of test set-up, equipment/gauges to be used. The sketch shall show the general configuration of the item under test with a schematic of the test system in sufficient detail to allow recreation of the test from the sketch. With each shipment, the vendor shall provide a certified report of pressure/hydro test results.

21. PROOF LOAD

The vendor shall provide a certified report of proof test results including sketch of test set-up, weight and accuracy of proof load and results of post load inspection showing concurrence. The sketch shall show the general configuration of the items under test, the point and method of application of the loads and sufficient dimensions to allow recreation of the test from the sketch.

22. ACCEPTANCE / VERIFICATION

The vendor shall comply with the acceptance test requirements of the applicable specification, statement of work and/or procurement document. Submit with each; one certification of compliance and the electrical/functional test data required by the applicable specification, statement of work and/or procurement document. Applicable specification may be manufacture test specifications if no specifications are called out on the procurement document.

23. CORRECTIVE ACTION

The vendor shall take timely and effective action in eliminating the direct and underlying causes of deficiencies (root causes) reported to him by General Products, LLC. When received, the vendor shall respond to GP's request for corrective action in writing. Corrective action shall be appropriate to the effects of the nonconformities.

24. NONCONFORMING ARTICLE AND MATERIAL CONTROL

When an article or material produced or procured by the supplier or sub-tier supplier does not conform to applicable drawings, specifications or other requirements, the article or material shall be identified as nonconforming, segregated to the extent practicable, and held for review action. GP Quality Assurance Dept. must be notified in writing, as a minimum within two (2) working days of the nonconformance.

Supplier shall establish a controlled, closed loop documentation technique for recording, reporting, analyzing, correcting, verifying on nonconformance's discovered by the supplier, sub-tier supplier.

Supplier shall maintain records of discrepancies and their dispositions.

All records of supplier's nonconformance reporting and corrective action shall be maintained and made available to General Products, LLC for review.

Supplier shall conduct appropriate analysis and examination of nonconforming articles, materials or condition to determine the cause or reason for the nonconformance.

Nonconforming documentation and/or articles or materials shall be forwarded to General Products, LLC upon request. The supplier shall request written approval from General Products, LLC for each proposed use of articles or materials which do not conform to the requirements of the procurement specification and shall withhold the nonconforming articles or materials from further processing until written approval from General Products, LLC is provided.

When supplier acquires written approval from General Products, LLC for use of nonconforming product or materials, a copy of the written approval shall accompany each shipment of the effected articles or materials, the nonconformance shall be noted on each shipping document that accompany shipment.

SECTION VI. DOCUMENTATION REQUIREMENTS

25. IDENTIFICATION/REPRODUCIBILITY

All documentation submitted shall be identified with the purchase order number, parts drawing specification number including revision level and serial/lot number. Each page of documentation supplied shall be photographically reproducible through two additional reproductions.

26. SOFTWARE QUALITY ASSURANCE

The vendor shall plan, develop, and implement a software quality assurance (QA) program, which includes practices and procedures to assure compliance with all software requirements of this order.

27. NONDESTRUCTIVE TEST REPORTS

Submit with each shipment one reproducible record nondestructive test results. Test reports shall conform to the requirements stated in the applicable test specification. As a minimum the report shall indicate:

- a. Date Tested
- b. Name of testing organization
- c. GP's purchase order number
- d. Drawing number and revision
- e. Specification number and revision
- f. Quantity and serial numbers or lot numbers
- g. Actual Nondestructive Test (NDT) stamp of operator who performed work
- h. Results of test

28. SPECIAL PROCESS CERTIFICATION

Submit with each shipment one certification of special process to drawing requirements and identification by serial or lot number of the hardware processed. Certification shall include objective evidence of compliance with the applicable process, such as temperature charts and hardness test results for heat treatment or destructive/non-destructive test results.

29. DOCUMENTATION MAINTENANCE

Vendor shall retain objective evidence of the quality of any items supplied (material certification, manufacturing, assembly, inspection, physical/chemical test reports, test and special process records and material certifications records) until directed otherwise by buyer.

29A) The vendor shall retain objective evidence of the quality of the item supplied for a period of **3 years**, (manufacturing, calibration records, assembly, inspection, test, and special process records) and make available to GP upon request.

29B) The vendor shall retain objective evidence of the quality of the item supplied for a period of **7 years**, (manufacturing calibration records, assembly, inspection, test, and special process records) and make available to GP upon request.

29C) The vendor shall retain objective evidence of the quality of the item supplied for a period of **10 years**, (manufacturing calibration records, assembly, inspection, test, and special process records) and make available to GP upon request.

29D) The vendor shall retain objective evidence of the quality of items supplied (Material Certification, Manufacturing, Assembly, Inspection, Physical / Chemical Test Reports, Test and Special Process Records) until Directed otherwise by GP. Under no circumstances should these records be destroyed without the prior written approval of GP. Records shall be made available to GP upon request.

30. LIMITED LIFE/AGE CONTROL

All items with limited shelf life shall be clearly marked with the manufacturer's name, type of material, shelf life, date of manufacture, and usability limiting date. A minimum of 75% of the shelf life shall be remaining on all items on this order. If items have no shelf life limitation, vendor shall state obviously on shipping document.

31. MATERIAL CONTROL (CHEM & OR PHYSICAL)

Submit with each shipment one reproducible record of actual chemical and /or physical material analysis and certification of conformance to the applicable material specifications. The certificate shall contain a list of the applicable specification(s) including revision letter(s) and identification by heat, lot, or melt number.

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Submit with each shipment one reproducible record of actual chemical and physical material analysis and certification of conformance to the applicable material specifications. The certificate shall contain a list of the applicable specification(s) including revision letter(s) and identification by heat, lot, or melt number.

33. MATERIAL CONTROL

Vendor shall retain on file the actual chemical and /or physical material analysis of all raw material including certifications. Material identification shall be maintained to heat, lot, or melt number, and shall be verified by the QAR prior to shipment.

33A. MATERIAL CONTROL

Vendor shall retain on file the actual chemical and physical material analysis of all raw material including certifications. Material identification shall be maintained to heat, lot, or melt number, and shall be verified by the QAR prior to shipment.

33B. MATERIAL CONTROL (RANGE)

Submit with each shipment one reproducible record of typical chemical and/or physical certifying that material is within range of applicable specification to which material was ordered.

33C. GENERAL PRODUCTS FURNISHED MATERIAL CERTIFICATION

When material is furnished by General Products, LLC a certification of compliance signed and dated by a company official with the following statement. (It is hereby certified that all materials used in the manufacture of parts in the quantity called for conform to the material and manufacturing specifications indicated in drawing or specification as furnished by General Products, LLC. With no substitutions made.)

34. MANUFACTURER'S CERTIFICATION

Submit with each shipment one copy of the manufacturer's certification for the material/equipment supplied stating that the manufacturer has objective evidence of conformance of applicable specification on file traceable to the material/equipment supplied and available review upon request. The certificate shall contain, as a minimum,. A list of the specification(s) and revision letter and the signature of an authorized representative of the manufacturer.

35. CURE DATE MATERIALS

Submit with each shipment, stating the conformance to material specification listing the cure date of each applicable lot.

36. LOAD LIMITATIONS

Submit with each shipment a certificate indicating maximum safe working load for each item.

37. PRESSURE VESSEL CODE

With each shipment, provide two copies of (ASME) code reports showing conformance of the units to the requirements of the pressure vessel code.

38. THREADED FASTENER REQUIREMENTS

For each item on this order, vendor shall submit a copy of the manufacturer's certification for the hardware supplied. The certification must contain.

- a. Statement that the hardware supplied was manufactured and acceptance tested in accordance with the applicable specifications.
- b. Listing of both the ordering and procurement specification, including revision levels.
- c. Annotation of the fastener's lot number on the shipper, certification, or packing list; any one of three will be acceptable.
- d. Vendor name and date.

Vendor shall submit with each shipment one reproducible record of actual chemical analysis and actual physical test results for hardware shipped. The record must have identification by heat, lot, or melt number.

Vendor shall submit data with each shipment, providing objective evidence that all processing, treatment, testing, and inspection as required by the applicable ordering specification and related procurement specification have been satisfactorily completed.

Data shall include, but not limited to, ultimate tensile, ultimate shear, hardness, dye penetrant, and magnetic particle, results when required by applicable specification.

Vendor's Quality Control organization shall be responsible for ensuring that items of this order are packaged in such a manner that the dimensional integrity is preserved, contamination and corrosion are prevented, and no physical damage occurs to the threads during shipment. For externally threaded fasteners, the preferred method, when size permits, will be individually sleeve the threaded portion of the fastener. Any method used shall insure that threads remain undamaged during shipment. Bulk packaging of unprotected threads is prohibited. Exception: Fasteners smaller than .25 inch diameter may be bulk packaged up to 100 counts per container.

39. MIL-SPECIFICATION CONFORMANCE

Items supplied under military specification shall conform to the specification regarding limits of size, finish, material, component details, and performance.

40. VENDOR CATALOG CONFORMANCE

Items supplied under the vendor's catalog number that are not controlled by a federal or military specification shall conform to the vendor's catalog description regarding limits of size, finish, material, component details, and performance. The vendor shall coordinate variations or departures from the catalog description with the GP buyer prior to delivery of such items.

41. MATERIAL CONFORMANCE

Submit with each shipment a certificate of conformance certifying that all materials shipped against this purchase order are in conformance with the requirements of the purchase order and specifications that are indicated.

SECTION VII. METROLOGY REQUIREMENTS

42. CALIBRATION CERTIFICATION

Submit with each shipment one certification of the accuracy of the measurements and weights included. Indicate trace ability of measurements to the National Institute of Standards and Technology.

43. CALIBRATION CERTIFICATION WITH DATA

Submit with each shipment one reproducible record of actual calibration results, including graphic and tabular data. Indicate trace ability of measurements to the NIST.

SECTION VIII. GOVERNMENT/GP FURNISHED MATERIAL

44. GP/GOVERNMENT FURNISHED MATERIAL

Furnished material shall be inspected prior to the performance of activities specified in the purchase order. Inspection shall be in accordance with applicable specification requirements.

General Products, LLC shall be notified of all deficiencies/departures discovered during your receiving inspection of GP furnished hardware or material.

SECTION IX. CHANGE ORDERS

45. CERTIFICATION OF CHANGES

The vendor shall submit, in writing, Certification of Changes affecting Product, Part/Material supplied, or Change in Process Definition, and Date of Effectivity. This documentation of the change(s) must be Approved by GP, prior to Delivery.

46. UNRELATED CHANGES

All product assurance requirements and conditions previously established by the purchase order are not affected by this change order.

SECTION X. MISCELLANEOUS ADDITIONAL CLAUSES

47. MODIFICATIONS

Hardware to be modified shall be status reviewed prior to modification. GP shall be notified of all deficiencies/departures discovered during your receiving inspection. Our original identification markings shall be retained.

48. REQUIREMENTS FOR HEAT-TREATING OF ALUMINUM PRODUCTS AND MATERIAL

All heat-treating shall comply with the exact requirements set forth in the Purchase Order including the Revision. This applies to material at the mill or any other heat-treating source. The vendor shall submit a reproducible certification for the material and products supplied certifying that the material was heat-treated in accordance with the applicable specification.

49. MATERIAL SAFETY DATA SHEET

Submit with each shipment the appropriate MSDS and Technical Data Sheet for products ordered.

50. PACKAGING REQUIREMENTS

The vendors quality control organization shall be responsible for ensuring that items of this procurement are packaged in such a manner that the dimensional integrity is preserved, contamination and corrosion are prevented, and no physical damage occurs during transportation and delivery to General Products, LLC.

51. RESUBMISSION OF NONCONFORMING ARTICLES AND MATERIALS

Nonconforming articles and materials returned by the contractor and subsequently resubmitted by the supplier shall bear adequate identification of such nonconformance, either on the articles, materials or applicable supplier records. Reference shall be made to the contractor's nonconformance documents and evidence provided by the supplier that causes for non-conformances have been corrected and actions taken to preclude recurrence.

52. SCRAP CONTROL AT VENDOR

Control scrap hardware and scrap raw materials as specified:

- a. Vendor shall permanently identify scrap hardware or raw materials by complete destruction or impression stamping or etching the word "scrap", or painting with red paint, signifying scrap hardware or raw materials.
- b. Vendor shall establish documentation to control all aspects of identification, traceability, segregation, control and disposal of scrap hardware or raw materials.
- c. Vendor shall establish physical segregation and control of scrap hardware or raw materials in an enclosed locked area with limited access.
- d. Vendor shall dispose of scrap hardware or raw materials ensuring complete destruction, which prevents reintroduction of use.
- e. Scrap hardware or raw materials may be used for non-production purposes (shop aids, engineering evaluation units, etc.). This scrap shall be subject to identification, documentation, segregation and control requirements.

53. PROCESS CONTROLS

Vendor is responsible for maintaining a system to control processes under this Order at their facilities and the processes performed at their subcontractor and lower-tier subcontractor facilities.

Vendor shall perform systematic, periodic evaluation of personnel, equipment, methods, and material required in the performance of the processes to assure positive control. Vendor shall perform onsite surveys of their subcontractor and lower-tier subcontractors prior to initial performance of process activity and no later than every two years there after, unless otherwise specified in this Order.

Critical processes designated on this Order shall have a written process implementing procedure approved by qualified vendor personnel to revision level or date. Procedures shall incorporate the governing specification requirements for training and personnel certification, equipment, processing, testing and inspection. For critical processes performed at Vendor's plant, the buyer shall approve all critical processes implementing procedures prior to processing hardware, as well as any changes thereto. Critical processes performed at Vendor's subcontractor and lower-tier subcontractors shall be approved and controlled by Vendor prior to processing hardware as well as changes thereto. Vendor shall maintain objective evidence on file to verify approval of process procedure by revision level or date. Objective evidence shall be in the form of a letter, Approved Vendor List, survey result or equivalent documentation that is specific to the process being approved. Each component and/or piece part which has a critical process performed by the subcontractor or lower-tier subcontractor shall include a process certification that demonstrates completion of the process and identifies the applicable process specification, implementing procedure with revision level or date, and last on-site survey date. The process certification may be in the vendor's format as long as all required information is contained therein and shall be presented to buyer for final acceptance.

Process control is not required for off-the-shelf materials or hardware.

Processes performed on materials heat-treated/tempered at the mill are accepted via review of actual chemical/physical test reports. This exclusion does not apply to any processes performed after receipt of material from the mill.