

Hydrasearch Company, Inc.
Technical Products & Precision Mfg.
QUALITY ASSURANCE REQUIREMENTS

TO DETERMINE THE REQUIREMENTS WHICH ARE INVOKED ON THIS PURCHASE ORDER, REFER TO THE APPLICABLE PARAGRAPHS NOTED ON THE PURCHASE ORDER. (Failure to comply with applicable requirements will be cause for rejection)

1. DEFINITIONS as used herein:

- a) The term "BUYER" shall mean Hydrasearch Company, Inc. or Technical Products.
- b) The term "SELLER" shall mean the person, firm, or corporation by whom the products described in this order are to be furnished.
- c) The term "ORDER" shall mean the Purchase Order, incorporating by reference these Q.A. Requirements and all Drawings, Specifications, and any applicable data incorporated by reference therein.
- d) The term "SUPPLIES", as used herein, includes but is not limited to raw materials, components, intermediate assemblies, end products, supplies and services.

2. SOURCE INSPECTION:

- 2.1 The buyer reserves the right to inspect at source all supplies and services at the seller's facility in addition to any supplies or services not manufactured or performed at the seller's facility by a Hydrasearch Q.A. Representative. The seller shall furnish, at no cost, necessary facilities and equipment to the Q.A. Representative for their inspection. Notwithstanding the provisions of this clause, all items may be subject to inspection and acceptance at the buyer's facility.
- 2.2 The Government reserves the right to inspect at source all supplies and services not manufactured or performed within the buyer's facility. Should the Government exercise such inspection at the seller's facility it shall not constitute acceptance; nor shall it in any way replace the seller's inspection or otherwise relieve the seller of their responsibility to furnish an acceptable end item. The purpose of such inspection is to assist the Government representative at the buyer's facility to determine the conformance of supplies or services with contract requirements.
- 2.3 Government Source Inspection is required prior to shipment from your plant. Upon receipt of this order, promptly furnish a copy to the Government Representative who normally services your plant. In the

event the representative or office cannot be located, our purchasing agent shall be notified immediately.

3. QUALITY / INSPECTION SYSTEM:

- 3.1 The seller shall provide and maintain an inspection system acceptable to Hydrasearch covering supplies and services under this order. This inspection system shall encompass all tests and examinations necessary to verify conformance with technical requirements and shall, as a minimum but not limited to, include receiving inspection, manufacturing first piece, in-process, final inspections, and lot / heat segregation. As part of the system, the seller shall prepare records evidencing all inspections and tests made under the system and the outcome. These records shall be kept complete and made available upon request by the buyer or their authorized representative
- 3.2 The seller shall provide and maintain an inspection system in accordance with MIL-I-45208, ISO 9001 or equivalent. The seller's inspection system shall be documented and shall be available for review by the Government, their representative, and the buyer prior to the initiation of production and throughout the life of the order.

3.3 CALIBRATION SYSTEM

- 3.3.1 The seller shall provide and maintain gages and other measuring and testing devices necessary to assure that supplies conform to the technical requirements. In order to assure continued accuracy, these devices shall be calibrated at established intervals against certified standards which have known valid relationships to national standards. Records of such calibrations shall be adequately maintained and all measuring & test equipment and measurement standards shall be identified with the calibration status.
- 3.3.2 In addition to the requirement of para. 3.3.1 above, the seller shall maintain a calibration system that meets the requirements of ANSI/NCSL Z540-1-1994, or ISO 10012.

4. DRAWINGS AND SPECIFICATIONS

In performance of the work under this order, the seller shall comply with the specifications shown or referenced to on the order and all drawings and all specifications referenced on such drawings. Such specifications are deemed to be and are hereby made a part of the order. The drawings and specifications are intended to explain each other. If any discrepancy, difference or conflict exists between the provisions hereof and the drawings and specifications or order, the same shall immediately be brought to the attention of the buyer's Quality Control Manager, who will resolve such conflict. Unless otherwise specified, all specifications referenced within the order, drawings, or specifications referenced by other specifications, shall be to the current published revision level.

The seller shall include and invoke all information to their sub tier vendor that is included on the buyer's order. This information shall include but is not limited to Government Source Inspection, DPAS regulations and QC16911.

5. INSPECTIONS AND TESTS

Seller shall have, or establish and maintain, a Quality Control System appropriate to the size and nature of its operation, but of sufficient scope to assure that supplies delivered under this purchase order will comply with all applicable drawings, specifications, H/S Quality requirements, and other purchase order agreements. The supplier shall keep adequate material control to assure that it is identified in relation to certification, inspections, and tests, heat identification, and buyer's documentation is maintained.

6. CERTIFICATION

- 6.1 Certifications, Packing List and Objective Evidence Reports will be sent electronically to Hydrasearch's Quality Department when any shipment leaves the Vendor's facility. The certificate must stipulate that the items ordered and contained in such shipment meet all drawings, specifications, and other applicable documents as cited in the order. This statement should also specify that process certifications, inspection records, chemical, physical, nondestructive, or any other test reports as required are on file and available upon request. This certificate must be recorded on the seller's letterhead and at a minimum bear the date, Hydrasearch purchase order number, signature, and title of the authorized representative of the seller. Statements of material certification documents must be positive, disclaimers such as "to the best of our knowledge" or "we believe the information contained herein is true" are not acceptable.

7. OBJECTIVE EVIDENCE

- 7.1 Actual mill chemical and physical test reports which indicates conformance with order requirements for all raw materials used to produce supplies, shall accompany each shipment.
- 7.2 Nondestructive test certification/report (i.e., radiography, magnetic particle, dye penetrant, ultrasonic inspections, etc., as applicable), shall accompany each shipment.
- 7.3 Certification and /or test report of hydrostatic testing per order requirements, shall accompany each shipment.
- 7.4 Functional test report / data per order requirements, shall accompany each shipment.
- 7.5 Chemical test report indicating conformance with order requirements, shall accompany each shipment.
- 7.6 Physical test report indicating conformance with order requirements, shall accompany each shipment.
- 7.7 Inspection results / report – This is normally generated during receipt, first piece, in-process, or final inspections by the seller's inspection personnel and consists of inspections such as alignment checks, visual inspections, dimensional measures, etc., shall accompany each shipment. See section 10 of these Quality Requirements for sampling inspection.

8. MERCURY FREE

The material supplied under this order is subject to the prohibition of mercurial contamination and therefore shall contain no metallic mercury and shall be free from mercury contamination. During manufacturing processes, tests, and inspections the supplies shall not have come in direct contact with any mercury containing device employing a single boundary of containment. Mercury contamination of the material shall be cause for rejection. A Certification of Compliance for these requirements shall be provided when specified or upon request. These requirements shall be passed on to all sub-tier suppliers and or subcontractors.

9. CORRECTIONS & ADDITIONS TO QUALITY DOCUMENTS

All documentation which serves as objective quality evidence shall be legible, reproducible, and documented with an instrument that provides a permanent record; i.e., ink pen, typewriter, etc.

Corrections and additions to quality documents shall be made as follows:

- a) Drawing a single line through the incorrect entry. (Erasure or obliterations, including "white-out", of information is prohibited).
- b) Enter the corrected information.
- c) Initial and date each correction.
- d) When additional information is added to a quality document, the entry must be initialed and dated,
- e) When a quality document is retyped, in portion or completely, to correct or add information, it shall be identified as a corrected copy and all changes shall be identified; i.e., (*). The document shall be resigned and dated.

NOTE: Quantitative, semi-quantitative data cannot be altered on another organization's quality document.

10. SAMPLING INSPECTION

Unless otherwise specified, the use of sampling procedures for acceptance of material utilized in finished products delivered under this order is permitted, provided that sufficient base data is obtained to warrant sampling and that an approved sampling plan is used. ANSI ASQC Z1.4 Level II AQL 1.0 is the sampling plan required by Hydrasearch and its customers. Any sampling plan used other than this must be approved by the Hydrasearch Quality Department. The supplier's use of a sampling plan as an inspection technique does not relieve him of the responsibility to deliver only fully acceptable items to the buyer under the purchase order.

11. NONCONFORMING SUPPLIES

Supplies not in compliance to drawing(s) and/or specification(s) requirements shall not be shipped without prior approval from the buyer. The seller may request same by notifying the buyer's Quality Control in writing of actual discrepancy, reason for discrepancy, and action taken to prevent recurrence. If authorization is given to ship, nonconforming supplies must be identified and segregated from conforming supplies. Acceptance will depend upon verification of discrepancy and final approval at the buyer's facility.

12. RECORDS RETENTION

All quality records of inspection, tests, and other quality related records shall be maintained by the seller for a period of seven years after final order delivery. Such records shall be made available to the buyer upon request.

13. LIMITED SHELF LIFE MATERIALS

13.1 Unless otherwise specified, the supplies provided against the requirements of this order shall be certified to have a minimum of five (5) years shelf life and a minimum of 80% shall remain at time of receipt at the buyer's facilities.

13.2 The following data shall be furnished by the supplier with shipment:

1. Cure Date or Date of Manufacture
2. Lot and/or Batch Number.
3. Shelf Life Limitation (i.e., suggested shelf life in years of expiration date by "Quarter Year").
4. Any special storage condition requirements.
5. Manufacturer's name.

13.3 The date of manufacture (cure date), batch or lot number, and the shelf life expiration date (by "Quarter Year") of the supplies shall be marked on each individual container.

14. WELDING AND BRAZING

All welding and brazing procedure and performance qualification shall be in accordance with MIL-STD-278/248 and submitted to the buyer's Quality Control Manager for review and approval prior to starting production.

If the Seller's procedure and performance qualification have been previously approved by the Buyer, a copy of the approval letter shall be submitted.

15. SPECIAL MATERIAL IDENTIFICATION

Supplies are required to be identified in accordance with MIL-STD-130 in addition to any other drawing or specification requirements.

16. LEVEL I REQUIREMENTS

It is imperative that traceability be maintained from the material to the material certification test report and other objective quality evidence. Material certification report(s) must completely and accurately reflect that the material supplied meets the specified requirements.

Procurement/Receipt Inspections: Purchase Orders for raw material shall specify that the material be traceable to material certification test reports by traceability codes, which shall be permanently marked on the material in accordance with MIL-STD-792 and identified on the test reports. The Certification Data Requirements contained in DI-MISC-81020 shall be

invoked on all suppliers / subcontractors supplying material.

Receiving inspection shall include as a minimum:

- a) Verification that the traceability number marked on the material agrees with that on the certification test reports.
- b) Verification that certification test reports are legible and complete.
- c) Verification that the contents of the certification test reports are in compliance with the invoked specifications and requirements.

Material Handling: All raw materials shall be marked with a unique traceability code (except for nonmetallic parts, welding and brazing joints, or filler material). Traceability of consumable materials (weld filler material, silver braze alloys, etc.) shall be by label attached to each container. Each container in the lot must contain material from the same traceability code, as defined in the applicable specification.

Stored raw materials requiring traceability shall be segregated to preclude intermingling with materials not requiring traceability.

When traceability marking will be removed by a manufacturing process, the marking shall be recorded prior to removal. An appropriate material control procedure (such as a bag and tag, tagging, and/or tote box control) must be employed. The material control procedure must provide a method of positive control to preclude commingling of heats or loss of traceability.

The material control process shall include requirements for the maintenance of traceability for items sent out for subcontracted operations.

Final Inspection: The following inspections shall be performed prior to shipping material:

- a) Material traceability has been maintained and material / supplies are either marked or segregated with adequate identification for each heat or lot of material being shipped.
- b) The material certification test reports are traceable to the material and that there is a test report for each heat or lot material being shipped. The certification test reports are complete and legible.

Material Markings: All traceability markings shall be permanently applied in accordance with MIL-STD-792. An alternate marking method is permissible provided it is an available option in the invoked specification or

drawing, except in instance where the material differs from that specified in the specification or drawing. Marking shall be legible and shall be located so as to not affect the fit, form and function of the material.

Material Certification: In addition to the Certification Data Requirements specified in DI-MISC-81020 invoked in this order, the following material certification requirements apply:

- a) In addition to quantitative chemical and mechanical properties, the material certification test reports shall include the class, form, condition, grade, type, and finish, as applicable, of the material supplied.
- b) Reidentification and recertification of material is required when material is subject to a process which alters its properties. If the starting material or raw stock is processed in a manner that will not affect its chemical composition or mechanical properties, the original certifications for the chemical composition and mechanical properties, as required by the material specification, are acceptable.

Recertification of the chemical or mechanical properties is required if a process is used during fabrication that alters the original properties of the material (e.g., alloying, heat treating, or forming). In these instances, the properties of the material must be redetermined and documented to reflect the altered condition. The altered material shall be uniquely reidentified. The properties thus determined and documented, are required for final certification and shall conform to the material/procurement specification or order requirements.

When only the mechanical properties are altered, the original certification for chemical composition shall be overstamped and / or annotated with the unique traceability marking used with the altered material as shown below.

Traceability number _____ is fabricated from raw material identified to Heat number _____ and Heat treat number _____ (when applicable).

(Name and Signature of auth. company rep.)”

Date

- c) Material Certification Data forwarded shall contain the signature, printed name and title of authorized representative of seller. The report results shall represent the actual attributes of the material

furnished and indicate full compliance with all applicable specification and order requirements. Transcription of certification data is prohibited.

- d) Statements on material certification documents must be positive and unqualified. Disclaimers such as “to the best of our knowledge” or “we believe the information contained herein is true” are not acceptable.

NOTE: If material / supplies is received without required certification papers, material will be rejected.

17. ACQUISITION AND USE OF NON-DOMESTIC SPECIALTY METALS

- 17.1 The seller agrees not to incorporate into any articles to be delivered under this purchase order, specialty metals not melted in the United States, its possessions, Puerto Rico, or a qualifying country. Specialty metals are defined in the Defense Federal Acquisition Regulation Supplement (DFARS 252.225-7014 and its Alternate 1). Qualifying countries are listed in DFARS 225.872-1(a).

Seller furnished material certifications for Specialty Metals ONLY:

1. Description of materials used in the manufacturing of the end-item
2. Material Specifications
3. Lot, heat or batch number identification
4. Source of procurement
5. Origin of material
6. Name and location of Melting facility
7. Name and location of mill
8. Mill Certification
9. All other requirements as specified in the applicable raw material specification, to include chemical and physical analysis.
10. Retain certification for a period of no less the seven (7) years after final payment.