

QUALITY ASSURANCE CLAUSES

(Clauses are applicable only as noted on Purchase Order)

01 INSPECTION SYSTEM REQUIREMENTS (MIL-I-45208A)

The supplier shall provide and maintain a system that complies with MIL-I-45208A "Inspection System Requirements." Compliance with the clause in no way relieves the seller of the responsibility to furnish acceptable supplies or services as specified on the purchase document.

02 CONTROL OF INSPECTION EQUIPMENT

Calibration of M & TE equipment shall meet or exceed the minimum requirements specified within one of the following standards ANSI/NCSL 2540-1 or ISO 17025 must be traceable to NIST standard.

03 VALVETECH/CUSTOMER/REGULATORY AUTHORITY

VALVETECH/Customer/Regulatory Authorities reserve the right to access to subcontractors facility for review of the quality systems, records, and facilities. The right to inspect any or all work included in this order is also reserved at any level of the supply chain. Ensuring that all personnel is aware of their contribution to product or service conformity; their contribution to product safety and the importance of ethical behavior.

04 GOVERNMENT SOURCE INSPECTION

Government inspection is required prior to shipment from your plant. Evidence of such inspection must be indicated on the packing sheet accompanying each shipment. On receipt of this purchase order/subcontract, promptly furnish a copy to the Government representative who normally services your plant. In the event the representative or office cannot be located, contact VALVETECH purchasing.

05 VALVETECH SOURCE INSPECTION

Source inspection shall be conducted by VALVETECH on the suppliers' facilities or where designated in this purchase order/subcontract prior to shipment. The supplier shall contact VALVETECH supplier quality assurance at least two working days prior to date items will be ready for mandatory inspection/test performance, including in-process and/or final test. Required documentation for shipment must be completed and signed by the supplier authorized quality personnel, and available for the VALVETECH supplier quality assurance representative.

06 FIRST ARTICLE INSPECTION

The supplier assumes full responsibility for production prior to receipt of approval of first article, piece and/or assembly from VALVETECH. The supplier is required to submit one or all of the following as required by purchase order:

- A. Submit the first article and inspection results with hardware to VALVETECH. At a minimum, inspection results shall include the actual value or dimension for each characteristic.
- B. Submit the first article to VALVETECH prior to shipment of material.

07 CONTROL OF ELASTOMERIC ITEMS

- A. Cured elastomeric items which exceed the cure date by more than 30% of the specified shelf life shall not be furnished.
- B. Uncured elastomeric material exceeding 30% of the specified shelf life from date of manufacture shall not be furnished.

08 SPECIAL PROCESS CONFORMANCE

When special process specifications; i.e., heat treat, soldering, welding, anodizing, chemical film treatment, NDT, etc., are a contract and/or drawing requirement, the supplier is responsible for maintaining a system to control special processes performed at their facilities. Suppliers must use NADCAP approved vendors. If not available contact VTI Quality before any special process is performed.

A. Passivate/Neutralization

For 430, 430F or 430VAC material: Before passivation; soak the parts for 30 +10/-0 minutes in a 5% solution of sodium hydroxide at 160 to 180 degrees F. Then rinse the parts thoroughly in clean de-ionized/RO water, running water. Passivate per specification on drawing: After passivation; remove parts from bath flush parts with de-ionized water/RO water, and then immerse parts in the sodium hydroxide solution at 160°F to 180°F for another 30 +10/-0 minutes. Rinse the parts again in clean running de-ionized water/RO water and dry.

B. Heat Treat Coupon

Any hardware that is hardened by a heat treatment process must be accompanied by a representative coupon (Sample) for hardness verification.

09 USE OF VALVETECH SUPPLIERS

Customer mandated suppliers must be used as specified on purchase order. The supplier is required to use VALVETECH's approved suppliers for performance of all special processes/NDT.

10 NONDESTRUCTIVE TESTING (NDT) CERTIFICATION

Each shipment must be accompanied by one legible copy of a certification signed by a responsible representative of the seller performing NDT. When applicable, the supplier is to maintain and have available for examination, records reflecting certification of personnel, equipment, and processes.

11 CONTROL OF NON-CONFORMING PRODUCT/PROCESSES OR SERVICES

All suppliers or lower tier supplies must notify ValveTech, Inc. for any non-conforming product, processes or services and obtain ValveTech, Inc. approval for disposition.

The suppliers or lower tier suppliers are not authorized to disposition non-conforming material as "repair" or "accept as is". For this purpose, material shall be defined as all material and components of the supplier and lower-tier supplier products which are under VALVETECH's design control. Any non-conforming materials, components or parts shall be

QUALITY ASSURANCE CLAUSES

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segregated and withheld for shipment to **VALVETECH** unless negotiated in advance. When authorized to ship non-conforming material, components or parts, the supplier shall ensure that the non-conforming items are identified; i.e., tagged, and specifically referenced as being non-conforming on certification statements. Materials or parts rejected by **VALVETECH** shall not be returned to **VALVETECH** without appropriate corrective action having been taken and then only with reference being made to the rejection report on the certification statement.

12 100% INSPECTION REQUIREMENT

The supplier must perform 100% inspection of all items on this purchase order to ensure compliance to drawings and specification requirements. Objective evidence of such inspection must be maintained on file and available for review by **VALVETECH**.

13 STATISTICAL PROCESS CONTROL

The supplier shall submit a statistical process control plan detailing how dimensions and processes will be controlled for items under this purchase order. **ValveTech's** approval of this plan is required. Objective evidence of statistical process control is to be maintained on file and available for review by **ValveTech**.

14 INSPECTION BY SAMPLING

The supplier may substitute sampling inspection in lieu of 100% inspection, if inspection is performed in accordance with MIL-STD-105D. Other inspection plans may be used with **VALVETECH** approval.

15 CERTIFICATION(S) OF COMPLIANCE

Manufacturers, dealers, distributors, and subcontractors shall certify that all parts, materials, and services meet **VALVETECH** and other referenced design, quality, and specification requirements.

Each shipment made against this purchase order must be accompanied, at time of receipt, by a minimum of one copy of the certification(s), inspection data, or test data satisfying all imposed quality assurance clauses with the signature and title of an authorized quality assurance official. Certifications, inspection data, or test data must include, where applicable:

- ♦ **VALVETECH's** part number and drawing revision
- ♦ Special process specification and revision as referenced on the drawing, purchase order, or packing sheet; i.e., military identification and/or **VALVETECH's** process specification.
- ♦ Material traceability; i.e., Material Identification Code (MIDC) number, serial number, or lot/batch number.
- ♦ COTS (Commercial-Off-The-Shelf) "Certificate of Conformance" (CoC) from the supplier, which verifies that the part meets the specified commercial standards and specifications will be supplied.

This requirement does not authorize supplier delegation of verification. All final acceptance will be determined at **VALVETECH** including, but not limited to, supplier certification and product conformance to all of the purchase order requirements.

16 CERTIFICATION OF COMPLIANCE

Each shipment must be accompanied by one legible copy of a certification meeting the applicable requirements of Clause 15 stating material, processing, and finish of parts on this order meet all specifications and drawing requirements.

17 CERTIFICATION OF MATERIAL

Each shipment must be accompanied by one legible copy of a certification meeting the applicable requirements of Clause 15 stating that material, processing, and finish of parts on this order meet all specifications and drawing requirements, and that physical and/or chemical test reports on manufacturer's certification of material used are available at your facility.

18 CERTIFICATION OF COMPLIANCE

Each shipment must be accompanied by one legible copy of a certificate meeting the applicable requirements of Clause 15 which states that items supplied were made from parts or material furnished by **VALVETECH**.

QUALITY ASSURANCE CLAUSES

(Clauses are applicable only as noted on Purchase Order)

19 PROCESS CERTIFICATION

Each shipment must be accompanied by one legible copy of a certification meeting applicable requirements of Clause 15 which is signed by a responsible representative of the seller performing the process. When applicable, the supplier is to maintain and have available for examination records reflecting certifications of personnel, equipment, and process.

20 CHEMICAL/PHYSICAL TEST

A copy of the original mill certification with chemical/physical analysis used on **VALVETECH**'s hardware will be sent to **VALVETECH**. The raw material certification of tests will show, as a minimum, the following:

- A. Manufacturer of raw material
- B. Domestic Mill DFARS Compliant
- C. Type of material (product description)
- D. Purchase order number
- E. Specifications including revision
- F. Material heat and/or lot number
- G. Material size
- H. Chemical and physical properties
- I. Signature and title of a responsible representative of the organization performing test

VALVETECH will inspect and accept the certifications and will give written approval to commence manufacturing. A copy of the same certification will accompany manufactured product.

21 CERTIFICATION OF MERCURY EXCLUSION

Each shipment made against the purchase order must contain a statement certifying:

- A. The manufacturer has taken appropriate steps to ensure supplies furnished under this order contain no metallic mercury or mercury compounds.
- B. The dealer/distributor has taken reasonable steps to ensure that supplies furnished under this order have not been contaminated with mercury or mercury compounds.

The certification shall reference purchase order number, part number, description, and quantity of this shipment.

22 CERTIFICATION OF MANUFACTURER

The supplier (distributor) shall provide the manufacturer's name and purchase order number under which the distributor acquired the material.

23 CERTIFICATION OF CALIBRATION

Each item shall be accompanied by a certification signed by a responsible representative stating that calibration of equipment on the purchase order complies with the requirements of ANSI/NCSL 2540-1 or ISO 17025. The certification must reference the NIST test number and a copy of the NIST test report shall be attached.

24 PACKAGING

Unless otherwise specified, preservation, packaging, handling, and shipping of items shall be in accordance with best commercial practices to prevent damage to ensure original quality is maintained.

- A. Precision machined hardware must be packaged in clean plastic containers - no cardboard containers allowed unless parts are individually packaged in plastic bags.

25 EEE MATERIAL

Each item on this purchase order must be identified with manufacturer and date/lot code number in accordance with MIL-STD-1285A. Supply chain traceability of EEE items are required, also manufacturer's authorized/franchised distributors and intermediary's certificate of conformance (C of C) retention is required.

26 STATIC SENSITIVE DEVICES

Static sensitive devices; i.e., CMOS Integrated circuits, etc., shall be stored, handled, and packaged according to appropriate procedures to ensure against damage by static induced voltages. The packaging shall be marked to ensure static awareness upon receipt at **VALVETECH**.

27 IDENTIFICATION OF SHELF LIFE MATERIALS

Seller shall identify each item, package, or container with the cure date or manufacturing date, expiration date, and special storage or handling conditions; in addition to the normal identification of name, part or code number, specification number, type, size, quantity, etc. This identification, including special handling and storage condition, shall be recorded on the certification and signed by an authorized representative of the seller.

28 INSPECTION AND TEST DATA RETENTION

Test and inspection data for the item shall be retained on file at the supplier's facility for a period of seven years after shipment unless otherwise specified.

29 INSPECTION AND TEST SUBMITTAL

The supplier is required to ship one copy of the following data with each item shipped as required by purchase order:

- A. Inspection data
- B. Test data
- C. Objective evidence of 100% inspection
- D. Objective evidence of statistical process control
- E. Test report

Inspection/test reports must include the requirements of Clause 15.

30 OPERATING/CYCLE DATA

The seller/vendor shall initiate and maintain a record of operating time and cycle record of acceptance testing in the performance of this purchase order. Operating time and/or cycle is a requirement of this purchase order and must be submitted with each shipment traceable to the part it represents by serial number.

QUALITY ASSURANCE CLAUSES

(Clauses are applicable only as noted on Purchase Order)

31 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL DATA

PURCHASE ORDER REQUIREMENT

STATE EMPLOYEE "RIGHT TO KNOW" LAWS AND OSHA HAZARD COMMUNICATION STANDARD (29CFR 1910.1200) REQUIRES ALL MANUFACTURERS AND SUPPLIERS TO LABEL CONTAINERS OF HAZEROUS CHEMICALS AND TOXIC SUBSTANCES WITH THE CHEMICAL NAME AND HAZEROUS WARNING. MATERIAL SAFETY DATA SHEETS (MSDS) ARE ALSO REQUIRED FOR THESE SUBSTANCES. WE REQUIRE THAT THE MSDS BE SUPPLIED WITH EACH INVOICE. PAYMENT WILL BE HELD UNTIL SUCH TIME AS THE REQUIRED MSDS ARE RECEIVED.

32 COMPONENT DEBURR

The use of beading, sand blasting, and/or tumbling for deburr of **VALVETECH**'s parts is prohibited and will not be accepted at receiving inspection unless prior written approval is granted by **VALVETECH**.

- A. Tack Weld, Tig Weld, EDM and Glass Beading are not allowed to be performed on any VTI hardware without prior written approval from VTI personnel.
- B. Suppliers of manufactured hardware will inspect hardware using a 10X minimum magnification microscope. Hardware must be burr free.

33 SPECIAL PROCESS

The use of a **VALVETECH** approved special process house is required.

- A. Any special process or manufacturing process (ex: weld, passivate, heat treat) must be followed per VTI blueprint/specification call out on drawing.

34 ValveTech CUSTOMER AND/OR REGULATORY AUTHORITY SOURCE INSPECTION

VALVETECH customer and/or regulatory authority inspection shall be conducted by **VALVETECH** on the suppliers' facilities or where designated in this purchase order/subcontract prior to shipment. A **VALVETECH** quality assurance representative shall be present with the customer and/or regulatory authority during the source inspection. The supplier shall contact **VALVETECH** supplier quality assurance at least two working days prior to date items will be ready for mandatory inspection/test performance, including in-process and/or final test. Required documentation for shipment must be completed and signed by the supplier authorized quality personnel, and available for the **VALVETECH** supplier quality assurance representative and their customer and/or regulatory authority.

35 CORRECTIVE ACTION

Supplier shall, on forms designated by purchasing manager, provide statements of corrective action on failures of supplier's hardware. Corrective action statements, at **VALVETECH**'s, option, may require approval signature by customer and/or regulatory authority representative. All rejected articles resubmitted by supplier shall bear adequate identification including reference to **VALVETECH**'s rejection document.

36 SUB-TIER FLOW DOWN

In the event the supplier sub-tiers work, the purchase order requirements, including quality clauses, shall be flowed down to sub-tier suppliers including key characteristics, when required. Sub-tiering the work does not exclude the prime supplier from the requirements of this purchasing document.

37 CHANGE IN PRODUCT AND/OR PROCESS

In the event of changes in the product, facilities, suppliers or process definition, the supplier will notify **VALVETECH** and obtain approval to proceed. All parts substitutions and obsolete parts are prohibited.

38 COUNTERFEIT PRODUCT PREVENTION

All suppliers and their sub-tier suppliers must submit OEM-original equipment manufacturer's certification with all products listed on purchase orders. ValveTech will not accept any product with altered/redacted certifications. If suspect **Mechanical parts, Material and** **EEE** parts are received, receiving will notify Quality/Engineering. A Hold tag (FORM-35) will be completed and customer will be notified. Parts will be quarantined until deemed authentic by Quality/Engineering/Customer.

39 DRC CONFLICT FREE MATERIALS

The supplier agrees to deliver products that are "DRC Conflict Free," as that term is defined in the SEC's final rule. "DRC Conflict Free" material shall not contain certain minerals designated as "Conflict Minerals": gold, columbite-tantalite (coltan), cassiterite, wolframite, and their derivatives (tantalum, tin, and tungsten) that have been mined or smelted in the Democratic Republic of the Congo (DRC), Angola, Burundi, Central African Republic, Republic of Congo, Rwanda, South Sudan, Tanzania, Uganda, or Zambia.

40 REACH REQUIREMENTS

European Union Regulation 1907/2006, known as REACH (Registration, Evaluation and Authorization of Chemicals) shall apply to all materials supplied to ValveTech, Inc. regarding SVHC's (substances of very high concern) such that the concentration shall not exceed 0.1% by weight. (Reference: http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp.) ValveTech, Inc. requires immediate notification for any material supplied to us containing substances from the SVHC list that exceeds 0.1% by weight.

41 SILVER PLATED COPPER CORROSION (RED PLAGUE)

Suppliers should take all steps necessary to prevent and detect the formation of corrosion (Red Plague) on wires per SAE ARP6400.

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Critical (Custom machine hardware Type 1) and Outside Process Suppliers (Sub Special Type 3) may be monitored and evaluated semiannually based on their ability to deliver purchased items to ValveTech, Inc. on time and without defects. Results will be shared with Suppliers and ValveTech, Inc. Management team. VTI Metric – 85% Suppliers that fall under 85% will be given a one-time warning. Two or more warnings within two consecutive reporting periods will result in probationary status and a Supplier Corrective Action plan will be issued.