

 WesTest Engineering Corporation	Document No:	3004734
	Revision:	B
Title: Quality Control Requirements For WesTest Suppliers		Sheet: 1 of 3

1 Purpose

This document establishes basic WesTest Engineering Corp. Quality Control requirements for the WesTest Suppliers (Seller) necessary to ensure that the supplier/services purchased from the Seller meet the required quality levels.

2 Scope

This instruction applies to WesTest Engineering Corp. procurement activities and WesTest Suppliers.

3 Supplier Responsibility & Applicable Requirements

It is the Seller's responsibility to comply with the requirements stated herein. **Sellers are required to meet the General requirements, Section 6, and Section 7 (if applicable).** The Sections (paragraph) pertaining to these requirements are as follows:

- Section 6 General Requirements
- Section 7 Custom Metal Fabricated Parts

4 Reference Documents

5 Definitions

Seller: means the vendor/supplier or distributor performing the work/supplying materials, parts assemblies, subassemblies, and systems or services pursuant to the purchase order.

Buyer: means WesTest Engineering Corp. (subsequently referred to as WesTest), issuing the purchase order (physically or electronically) which invokes this document.

FOD: Foreign Object Debris

ESD: Electrostatic Discharge

6 General Requirements

The general requirements described in this section apply to Sellers manufacturing parts for Westest. Commercial off-the-shelf parts purchased through a vendor catalog or web-site do not require compliance to this procedure.

6.1 Conflicting or Unclear Requirements and Verification of Revision Status

The supplier shall notify WesTest buyer to resolve any unclear or conflicting requirement(s) in WesTest Drawings, design data (i.e. Gerber or solid works data), or purchase order. This requirement includes any process incompatibility with specified design criteria. Supplier shall not proceed until clarification or resolution is obtained from WesTest.

Verification of revision status: For purchased product that must meet WesTest specification, drawing, process requirement, or verification instructions, the supplier shall verify the WesTest specification or drawing revision matches the revision indicated in the purchase order (P.O.).

6.1.a Order of Precedence

When a conflict exists between the requirements stated herein, the rest of the Purchase Order (P.O.), or the WesTest drawing; the order of precedence is as follows:

1. The WesTest Purchase Order (P.O.)
2. The WesTest supplied part number drawing
3. Quality Control Requirements for WesTest Suppliers

6.2 Change Notification Policy – Manufacturer Specified Product

When WesTest procures from manufacturer with design authority (i.e. WesTest procures to manufacturer's data sheet (specification) or procures "off the shelf" standard product), the manufacturer shall notify WesTest of design, process, material, supplier, or manufacturing facility changes that may affect "form, fit, function" or compatibility with next level processing including industry recognized soldering or cleaning processes.

6.3 No Change Policy – WesTest Specified Product

For purchased items that must conform to WesTest design data, (i.e. drawing, specification, or Gerber), including product manufactured from supplier assembly documentation developed from WesTest design data; no change to design, processes or material shall be implemented by the supplier without written approval from WesTest Engineering Corp.

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6.4 Supplier Quality System

The supplier's quality system shall be appropriate to achieve specified product quality requirements as well as requirements not stated by WesTest but necessary for intended use of the supplied product, where known. The supplier shall maintain a quality system that performs sufficient inspection and tests; as well as identify, control and prevent unintended use of nonconforming product ensuring product conforms to applicable drawings and specifications. WesTest Engineering Corp. reserves the right to review supplier's quality system by on-site surveillance.

6.5 Supplier Personnel Qualification

Qualification and training level of supplier personnel shall be appropriate to achieve product quality requirements as specified as well as non-stated requirements necessary for intended use of product. If applicable, specific personnel qualification requirements will be included in the purchase order or sub-contract.

6.6 Certificate of Conformance (C of C)

A certificate of conformance (C of C) must be delivered with each shipment. The C of C shall state the parts or material delivered comply with the requirements contained in the following, as applicable:

- Purchase order,
- Specification,
- Drawing,
- Supplier Data Sheet as mutually agreed between the supplier and WesTest.

6.7 Hazardous Material

Components, parts and material delivered to WesTest shall be free of compounds containing mercury, beryllium, cadmium, and chromium.

6.8 Nonconformance Notification

The Seller shall notify the Buyer if there may be a nonconformance to form, fit, function, or issue with usability or reliability problem with product or material that has already been delivered. Seller shall not knowingly ship non-conforming material or product without written authorization from WesTest.

6.9 Failure Analysis and Corrective Action Requirement

The Seller agrees to conduct failure analysis, investigation of root cause and corrective action for parts, materials or assemblies delivered that have failed during WesTest testing or failed at Westest's customer or field use. Seller shall provide timely replies to WesTest Non-conforming Material Report (NCMR), Corrective Action Request (CAR), or Supplier or Outside Lab Failure Analysis Request (SOLFAR). Non-response or late responses will adversely affect the suppliers rating and may limit approval status for future business with WesTest Power Systems Inc.

6.10 Right of Access - Surveillance

The Buyer, customer, and regulatory agencies shall have the right of entry to Seller premises and access to applicable processes and areas of all facilities at any level of the supply chain to perform assessments necessary to ensure conformance to the requirements stated herein. The Buyer may conduct a survey and/or perform surveillance of the Seller's quality control system to evaluate the degree of ability to comply with these and other applicable requirements

6.11 Seller Flow – Down Requirements

The Seller shall flow down to Seller's sub-tier suppliers the applicable requirements contained herein. These should include the same requirements required of the Seller by this document.

6.12 Foreign Object Debris (FOD) Prevention


All parts and materials intended for Buyer shall be delivered free of FOD. All supplied products or services must be of sufficient materials and workmanship to prevent formation of FOD at any future time.

6.13 Preservation and Packaging

All parts and material intended for Buyer shall be protected against the usual hazards of ESD, corrosion, contamination, deterioration, or other spoilage at the Seller's facility and in transit. All material intended for Buyer shall be packed with suitable protection so as to prevent damage through handling, during storage at the Seller, in transit, and during storage at Buyer's facility before use. The Seller's handling, preservation, packaging and delivery processes shall contain provisions to prevent FOD.

6.14 Shipping Method/Carrier

Seller shall use shipping method or carrier as stated in Purchase order. Seller departure from shipping method/carrier as stated in Purchase Order releases WesTest (Buyer) from payment of shipping costs.

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6.15 Control of Records

The Supplier shall retain objective written evidence of hardware conformance to Purchase Order requirements for each shipment for a period of 2 years. All such records are subject to review and/or audit by WesTest.

6.16 First Article Inspection/Test

When indicated on the Purchase Order, Seller shall perform First Article Inspection (FAI) and furnish a First Article Inspection Report, to include actual dimensions, characteristics, test results, and verification of drawing notes in accordance with the drawing and/or specifications required by the Purchase Order. Material certifications and any special process certifications shall be submitted as part of the FAI documentation package. A copy of the FAI Report is to be included in the shipment and all first article pieces shall be identified as such in the shipment to WesTest.

6.17 Obsolescence

Seller notifies WesTest at such time seller becomes aware of a manufacturer's plans to discontinue component(s). Notification shall include recommendations of alternate parts if available and last buy timeline(s).

6.18 Electrostatic Control Plan

Suppliers providing static sensitive items, or performing a service to static sensitive items must take necessary precautions to ensure these items are protected from electrostatic charges. Additionally, suppliers are required to have an ESD Control Program available for review. It is recommended the ESD Control Program follow the guidelines of MIL-HDBK-263 (ESD Control Handbook for Protection of Electrical and Electronic Parts) or ANSI/ESD S20.20 (Protection of Electrical and Electronic Parts, Assemblies and Equipment).

6.19 Measuring and Test Equipment (Calibration)

Seller shall be responsible for validating the accuracy and stability of tools, gages, and test equipment used to demonstrate that items conform to the Purchase Order.

6.20 Age Limited Material

The Seller shall maintain a system for age control items where acceptability or usability of the item is limited by maximum age. The system shall include a method of identifying and controlling such items.

6.21 Special Processes

A special process is defined as any process for production or service, where the resulting process output cannot be verified to be compliant by subsequent inspection, testing or measurement and as a consequence, deficiencies become apparent only after the product is in use or the service has been delivered.

Examples of special processes are, but not limited to: chemical processing such as plating, painting, welding, brazing, or heat treating.

Seller shall be responsible for validating the accuracy and stability of tools, gages, and test equipment used to demonstrate that items conform to the Purchase Order.

7 Custom Metal Fabricated Parts

Parts or assemblies made from or controlled by a WesTest drawing, Includes: Chassis, base plates, covers, enclosures, customer assembly tools and fixtures, made from a WesTest drawing.

7.1 Burrs and sharp edges

Fabricated parts shall be free of all burrs and sharp edges.

7.2 Helical Wire Insert Requirements

When using tanged helical wire inserts, after installation of the helical wire insert the tang must be removed. Tangs left inside can be a source of FOD and/or cause interference when installing screws.

7.3 Cleanliness

Parts shall be cleaned adequately to remove any visual evidence of residues or contaminants.

All surfaces shall be free of contaminants introduced during deburring, polishing or other processing.