

POLICY

Quality Provision Riders

Compliance with the following Quality Provisions are required on all deliverable goods, confirmed by purchase order(s) as issued by Pacific Transformer Corp (PTC).

Exceptions or Deviations must be taken prior to accepting this purchase order.

Terms/Conditions of Purchase/Sale must be specified when confirming this Purchase Order or will hereby be nullified and replaced by PTC Policy, Terms and Conditions of Sale.

For Clarification, supporting documentation or assistance implementing these requirements, send a request to the PTC agent who has issued the purchase order.

1 CHANGES TO PRODUCT /PROCESSES

- 1.1 The supplier shall notify and obtain approval of changes in product and/or process, changes of manufacturing facility location and significant changes to their Quality management System that will directly impact the product, service or delivery. Failure to report change will result in an automatic rejection and disqualification as an approved source of supply. The following Forms will be supplied on request.
 - 1.1.1 Drawing Change Request
 - 1.1.2 Temporary Deviation Request

2 PURCHASE ORDER IDENTIFICATION

- 2.1 The supplier must identify the P.O. number on all documents included with the shipped material. (Pick List , C of Cs, Analysis, Test Reports, etc.)

3 FACILITY ACCESS

- 3.1 Pacific Transformer reserves the right to inspect any or all work open on orders at the supplier's plant.
- 3.2 Pacific Transformer reserves the right to perform an onsite Quality systems audit.
 - 3.2.1 Access rights shall be extended to accompanying Pacific Transformer Customers or 3rd party representatives. If a knowledgeable representative is required, a 48 hour advanced notice will be issued.

4 SHELF LIFE REQUIREMENTS

- 4.1 Items such as Chemicals / Epoxies/ Compounds with limited Shelf Life shall be delivered having no less than 70% of shelf life remaining unless written approval from Pacific Transformer is obtained accepting less than stated above.
 - 4.1.1 Chemicals / Epoxies / Compounds must be marked with manufacturing date and expiration date.
 - 4.1.2 Chemicals / Epoxies / Compounds must be shipped with an MSDS

5 QUALITY MANAGEMENT SYSTEMS

- 5.1 Suppliers: Distributors & Contract Manufactures, quality management system shall be in compliance with the current revision of AS91XX or ISO900X and shall be evidenced by a third party accreditation. Evidence of recognition, renewal or change in status is required.
- 5.2 In absence or addition to a third party certification Pacific Transformer may request specific Quality Management System information and/or audit as necessary to apply an approved status on the Authorized Vendor List.

6 DOCUMENTATION

- 6.1 Revision and Configuration Control: Seller shall assure they have the revision of the drawing matching the revision noted on this Purchase Order. If an item on this Purchase Order is controlled by a drawing that lists or references a Parts List (PL), the supplier must assure that they have the revisions in effect for the date of this Purchase Order. The supplier should contact the procurement agent whose name is on the Purchase Order for the current drawing revision level listed.

7 PROHIBITION OF ELEMENTS

- 7.1 The supplier is responsible for communicating these restrictions to subcontractors or sub-tier suppliers as required.
 - 7.1.1 The uses of Pure Tin Plated finishes are strictly prohibited. Any Tin Plating or Tin Solder processes shall contain NO LESS than 0.5% Cu (copper), or Ag(silver) composition.
 - 7.1.2 The uses of Pb (lead) Tin Plated finished are strictly prohibited. Pb will be specifically authorized if required.
 - 7.1.3 The use of Hg (mercury), Cd (Cadmium), is strictly prohibited.

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8 FOREIGN OBJECT ELIMINATION

- 8.1 The Supplier is responsible for maintaining an active Foreign Object Elimination program to ensure materials remain free of foreign objects and or contaminates throughout processes from manufacturing through final packaging and shipping.
- 8.2 The goods received shall not contain FOD (Foreign Object Debris) or cause FOD (Foreign Object Damage).

9 QUALITY AND DELIVERY REQUIREMENTS

- 9.1 Seller must deliver products / services which contain materials from original equipment manufacturer (OEM), original component manufacturer (OCM) that are, defect free, are NOT altered or counterfeit, reliable, accurate, in accordance to requirements of the product design and purchase order. Delivered products / services must be fulfilled On-Time per contracted delivery schedule. Any delay (or potential delay) must be reported to Pacific Transformer immediately.
- 9.2 Any Known Non-Conformance, or Potential Non-Conformance, must be reported to Pacific Transformer Immediately.
- 9.3 Failure to Produce Conforming Goods on Time will impact your Supplier Scorecard and affect your status on our Approved Vendor List. Non-Conformance Reports, low ratings or a change in status will be reported. To request current standings contact the agent who issued this purchase order.

10 CONFLICT MINERALS PROHIBITED

- 10.1 Seller must ensure product delivered comply with provisions of the Dodd-Frank Wall Street Reform for conflict minerals (tantalum, tin, tungsten and gold). These minerals shall not originate from the Democratic Republic of Congo ("DRC") or certain adjoining countries origin. A record of your most recent CFSI_CMRT is required.

11 COUNTERFEIT MATERIAL AVOIDANCE

- 11.1 Supplier is responsible for maintaining an active Counterfeit Material Avoidance program to ensure materials are from original equipment manufacturer (OEM), original component manufacturer and they are NOT altered or misrepresented in any fashion.

12 PACKAGING AND HANDLING

- 12.1 Seller must maintain a system for the handling of product that ensures protection from potential damages or degradation throughout the entire processes. Packaging method and materials used shall ensure product arrives at Pacific Transformer without physical damage, degradation, contaminates, or potential for introduction of Foreign Object Debris.

13 CRITICAL INFORMATION IDENTIFICATION REQUIREMENTS

- 13.1 All critical information including but not limited to, manufactured date/ shelf life / batch identification / country of origin / etc. must be typed and legible on supplier's pack list or material certification.

14 PRODUCT COMPLIANCE/CONFORMANCE & C OF C

- 14.1 All Sub-Contracted (Manufactured Goods) delivered must **Conform** to the specifications issued by PTC.
 - 14.1.1 Agency (Listed or Recognized) goods must also be **Compliant** to the agency requirements. UL, CSA, ETL, TUV
 - 14.1.1.1 If agency markings are applied to the product, materials used must be within the insulation system specified.
 - 14.1.2 Approved Deviations must be attached to the shipment.
 - 14.1.3 Temporary Deviations are applicable for a single Purchase Order unless an extension is authorized in writing by PTC.
 - 14.1.4 Deviation is made permanent only by a PTC issued amendment to the Specification.
- 14.2 For all purchased materials a C of C is required and must include RoHS identification.

15 FAILURE REVIEW AND CORRECTIVE ACTION

- 15.1 For all Non-Conformance(s) Failure Review & Corrective Action (CA) or Preventive Action (PA) is required to be initiated, resolved and closed in a timely manner with all due diligence.

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- 15.1.1 An RMA must be issued for the return of Non-Conformant material or items.
- 15.1.2 A Pacific Transformer approved CA/PA report shall be submitted with returned material.
 - 15.1.2.1 In the event that CA/PA requires extensive time to complete, an open report may be submitted with returned material contingent on confirmation of completion.

The following Quality Provision Riders are only applicable to Contract/Sub-Tier Manufactures

16 RECORD RETENTION

- 16.1 The supplier shall retain records for 10 years that include at a minimum, date of manufacturing, batch lot I.D control, manufacturing facility of product/service, processing records, which are applicable to products/services provided for Pacific Transformer.
 - 16.1.1 The Records must be legible and retrievable.
 - 16.1.2 If the above records cannot be retained for the specified time required, these records must be submitted with the material and positively identified as such for retention by Pacific Transformer.

17 FIRST ARTICLE INSPECTION REPORT

- 17.1 The First Article(s) must be positively identified as such, be 100% inspected, reproducible and have data recorded by the supplier prior to submittal.
 - 17.1.1 First article approval is required before production manufacturing begins, for new & revised goods.
 - 17.1.2 The First Article must be submitted with a report (as specified & measured) including mechanical dimensions, electrical characteristics, bill of materials, including jig(s) & fixture numbers if used.

18 SELLER CONTROLLED PRODUCTS (as applied to finished goods)

- 18.1 The initial shipment on this purchase order shall be accompanied by a legible and reproducible copy of applicable specifications, drawings, bill of material and manufacturing instructions in English and preferably in the Pacific Transformer standard format.
 - 18.1.1 Pacific Transformer requires control and ownership of the specified documents prior to subsequent shipments.
 - 18.1.2 Assign alternative part number(s) from catalog number if required or reference the part number issued by Pacific Transformer.

19 QUALITY FLOW DOWN TO SUPPLIERS/MANUFACTURES

- 19.1 Suppliers Quality System shall assure that all relevant Purchase Order requirements are flowed down to their sub-tier suppliers. Sub-tier suppliers are responsible to comply with the same specifications and requirements specified on this Purchase Order.

20 SOLDERING STANDARDS & ROHS COMPLIANCE

- 20.1 All materials supplied or furnished must be RoHS compliant unless specifically instructed or authorized in writing by Pacific Transformer.
 - 20.1.1 Pacific Transformer requires SN99, SN99.3 or SN99.5 solder on all standard applications unless otherwise specified.
 - 20.1.2 Pacific Transformer requires all PCB component solder joints to be tinned with No-Clean Flux 979 or equivalent (Non Flammable).
 - 20.1.3 Pacific Transformer requires all terminals / solder joints (Not PCB level) to be tinned with Rosin Flux 1544 or equivalent
 - 20.1.4 Pacific Transformer requires all solder joints to conform to J-STD-001 & IPC-610, current revision.

21 TRACEABILITY OF MATERIAL

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- 21.1 The supplier shall maintain traceability information for all materials, parts and assemblies used in fabricating the product. The supplier shall maintain records that provide evidence that the delivered product meets the requirements of the purchase order or contract. See Record Retention.

22 FINAL INSPECTION & FINAL TEST

- 22.1 All items manufactured for Pacific Transformer which contain electrical requirements shall be 100% Tested.
- 22.1.1 All Final Tests shall be performed on calibrated equipment, suitable for the required function.
 - 22.1.2 All tests performed prior to final test are considered "Reference Only" and may be performed on a sampling basis, and controlled by the supplier as necessary to achieve Conformance for Final Test.
- 22.2 Final inspection shall occur after all other processes have been completed. (Varnish, Testing, Final Assembly, etc)
- 22.3 The seller shall use 100% inspection, not a sample inspection plan when performing final inspection for supplier manufactured items.
- 22.3.1 All Final Inspection measurements shall be performed on calibrated equipment, suitable for the required function.
- 22.4 AQL or Sampling inspections may only be performed as a secondary or support function.
- 22.5 The seller shall provide, when requested, and maintain an inspection system acceptable to PTC. The seller's system shall be subject to audit by PTC. The procedures shall be clear, concise and adequate to fulfil the requirements of this purchase order. The system shall provide sufficient controls, records and inspections to assure compliance to contract or purchase order requirements. The system shall have a method of obtaining and providing written corrective action. The system will include verification of material, mechanical, electrical, process & procedural conformance as necessary. Records shall be maintained.

23 PRODUCT IDENTIFICATION

- 23.1 The supplier must identify all parts legibly with a minimum of Part Number, Revision and Manufacture Date Code by Week and Year (WWYY) and include stamping of testing and/or inspection. Where size and spacing allow Manufacture Identification "Pacific Transformer" is also required unless otherwise specified. See the following examples
- 23.1.1 The Origin or Manufacture ID should be identifiable on every unit.
 - 23.1.1.1 A record/log of your stamps or labels is required and must be furnished upon request.
 - 23.1.1.2 Pacific Transformer will issue/recommend acceptable stamps upon request.
 - 23.1.2 Where size and spacing do not allow, parts must be identified on the bag or container.
 - 23.1.3 Where applicable, orientation (Pin 1 ID), cautionary, safety, usage and agency marking is also required.
 - 23.1.4 Unless otherwise specified the default Font to be used is Arabic Typesetting, or any Sans-Serif, 5pts minimum.
 - 23.1.5 Markings and stampings should be made permanent by use high tack labels, sealing, anchoring or permanent Ink.

See the following examples which show acceptable marking Conformance.

23.1.5.1	Functional Test	<div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">F Test</div>	<div style="border: 1px solid green; border-radius: 50%; padding: 2px; width: 30px; margin: 0 auto;">PASS QC 01 PT</div>	<div style="border: 1px solid black; padding: 5px; width: 150px; margin: 0 auto;">PACIFIC TRANSFORMER P/N: 123456 REV: A DC: 0615</div>
23.1.5.2	Inspection			
23.1.5.3	Identification			

The Contents of this document and not intended to hinder, delay or inhibit PTC suppliers in any way.

This document is designed to establish a standard by which PTC can consistently and repeatably produce goods destined for PTC customers or End Users.

The standards defined within this document are a necessary Flow Down requirement by Quality Management Systems for ISO900X and AS91XX.

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