

Cal Tech Precision Quality Form

Title: Purchase Order Quality Clauses (Attachment Q)

Number: QF-74-2QC

INSTRUCTIONS: Review your Purchase Order for any “Q” clauses listed below. Failure to comply with the imposed clauses could result in a rejection from Cal Tech Precision Receiving Inspection. If you have any questions regarding these clauses, please contact our Quality Assurance department.

- Q1a** **CERTIFICATION REQUIRED:** A Certification is required for all Special Processes with applicable specification and revisions. To be included on this certification is a Certification of Conformance statement that covers all products or services as applicable and that they meet or exceed all requirements of the P/O or Contract.
- Q1b** **CERTIFICATE OF CONFORMANCE REQUIRED:** A Certification of Conformance (CoC) is required stating that all products or services as applicable meet or exceeds all requirements of the P/O or Contract, and that meets the requirements of AS9163 which includes but is not limited to the following minimum information required on a CoC: Cert #, PO #, Specs, Revs, Required and Measured Values, Titles, Name, Address, Customer ID # (if applicable), Date, P/N, Qty. (Accept/Rej), Quality Signature, Title, Protect & Packaging Spec (if applicable), etc.
- Q1c** **Supplier Quality and Delivery Composite Score:** The supplier shall maintain a composite score of 91% to 100% to remain Approved by Cal Tech Precision. Failure to maintain the required composite score may result in CAR request for Improvement or Disapproval.
- Q2** **CHEMICAL AND PHYSICAL TEST REPORTS:** Are required with each shipment and shall include the specific results of the Material Tests, validating that the Material meets all Purchase Order and specification requirements. Raw Material suppliers are required to ensure that Material Heat Lot traceability is maintained from the original Mill certification through the Certificate of Conformance or Bill of Lading from distributor.
- Q3a** **FIRST ARTICLE INSPECTION:** A First Article, complete with an inspection report, is required prior to commencing production. Any parts produced prior to approval of your FAI are produced at your own risk.
- Q3b** **FAI:** Verification optional prior to production run. But a documented dimensional verification is required with shipment.
- Q4** **GOVERNMENT SOURCE INSPECTION:** GSI is required at your facility. Contact the Government representative that normally services your plant immediately upon receipt of this P/O or contract. Notify CTP Purchasing when the inspection has been coordinated.
- Q5** **CUSTOMER SOURCE INSPECTION:** CSI is required at your facility. Contact Cal Tech Quality Assurance Dept. at least 72 hours prior to the product being ready for inspection. Caltech's Quality Assurance Department will coordinate the required inspection by Cal Tech's Customer or Regulatory Agency.
- Q6** **SPECIAL PROCESSING SUPPLIER / NDT SUPPLIER REQUIREMENTS:** Qualified Products, Qualified Personnel, Process Control, Control of Quality Records, Indication of Inspection Status and Adequate Work Instructions.
- Q7** **AGE-SENSITIVE MATERIAL:** Certifications to include specification number, date of manufacture, Batch / lot number and recommended shelf life.
- Q8** **MATERIAL SAFETY DATA SHEETS:** (MSDS) are required with shipment of all applicable controlled materials.
- Q9a** **100% INSPECTION:** Inspection is required with actual recorded results, for all characteristics on all parts to ensure conformance to Drawing and specification requirements. A Copy of this inspection record is required with the shipment of product.
- Q9b** **INSPECTION REPORT REQUIRED:** Showing documented evidence of inspection and verification of all dimensions with actual results by your quality department (Inspection report should show variance of dimensions measured or results of measurements from an acceptable sampling plan). This shall be included with shipment of product. Notify Cal Tech Precision of **nonconforming** item.
- Q10** **CONTRACT/DRAWING DIRECTED SOURCE/QUALIFIED PRODUCTS LIST:** This item/service is to be procured from the listed source.
- Q11** **TRACEABILITY & S/N:** requirements are imposed. If all parts have unique serial numbers assigned, maintain S/N Traceability at all stages of manufacturing or processing. Indicate serial numbers on all certifications, shipping reports and or documents, and Flight Safety Part Program Requirements spec. EPB 17-119 when required by customer.
- Q12** **CALTECH FURNISHED DOCUMENTS:** All Drawings, Specifications, Mylars, or related data is to be returned upon completion of the P/O or Contract.
- Q13** **TECHNICAL OR PROPRIETARY DATA:** All data provided to support manufacturing or processing of this order is proprietary and shall not be reproduced in whole or part and shall be returned upon completion of the P/O or contract.
- Q14** **CUSTOMER-FURNISHED PROPERTY:** All tooling furnished and utilized in accordance with this purchase order is Customer-Furnished and shall be returned with final shipment of parts or product. Customer furnished tools are to be handled in a manner to prevent damage / loss.

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- Q15** **NOE (NOTICE OF ESCAPEMENT):** When Seller (Supplier) determines a nonconformance exists or is suspected to exist on Products and/or Process Services already provided to Buyer (Cal Tech) under Contract and / or Purchase Order, Seller (Supplier) shall within three (3) business days (or sooner) of such determination provide written notice to Cal Tech Precision Inc. Quality Assurance and Purchasing department. For Flight Safety, Critical Safety, Fracture Critical, Maintenance Critical, Flight Science Critical Product, when Seller (Supplier) determines a nonconformance exists or is suspected to exist on Products and/or Process Services already provided to Buyer (Cal Tech) under Contract and / or Purchase Order, Seller (Supplier) shall within 24 hours notify Cal Tech Precision.
SUPPLIER REJECTION (NONCONFORMANCE NOTIFICATION): Cal Tech Precision Inc. does not GRANT / ALLOW the supplier MRB (Material Review Board) authority. All Product or Process Nonconformances must be made to Cal Tech Precision Inc. in writing prior to the shipment / delivery of such Product and / or Process completion, there are no exceptions.
MATERIAL / PROCESS SUBSTITUTION: Unauthorized material or process substitutions are not permitted on any Cal Tech Precision Product. Unauthorized material or process substitution includes any deviation from the engineering definition of a raw material or a process engineering specification. For all Boeing Military Part Programs, Boeing Clause D607 is applicable in its entirety and is available at:
https://www.boeing.com/suppliers/idscommon/clauses/DXXX/D607_20131115.pdf
SUBCONTRACTING: All or part of the work procured on this Purchase Order without written approval of Cal Tech Precision is prohibited. All approved Subcontracted operations must meet all provisions of the Purchase Order and be certified to by the subcontractor identified on this Purchase Order.
- Q16** **RIGHT OF ENTRY:** Cal Tech, our Customers, Government and Regulatory Authorities, shall have Right of Entry to verify the Quality of work, all applicable records and or materials to applicable areas of all facilities, at any level of the supply chain, involved in the order.
- Q17** **FLOW-DOWN:** Boeing's D6-82479 (AS9100 Current Revision) Quality Management System Requirements for Suppliers and D6-87282 (AS9100 Current Revision) Quality Management System – Supplier Quality Requirements are hereby imposed.
- Q18** **FLOW-DOWN:** Northrop's (SQAR) Quality System Requirements are hereby imposed.
- Q19** **FLOW-DOWN:** Lockheed's Appendix QJ & QX Quality System Requirements and Quality Definition A83 are hereby imposed.
- Q20** **ISO 9001:2008/2015 / AS9100C/D:** Quality System Compliance is required.
- Q21** **KEY CHARACTERISTICS, SPC DATA REQUIRED WITH SHIPMENT:** Control Plans _Control Charts _Histograms.
- Q22** **WRITE-IN REQUIREMENTS:** Any requirements not specified above shall be explained in detail here or in an accompanying document.
- Q23** **SUPPLIER RECORD RETENTION:** Supplier / Vendor is to file & maintain a minimum of 10 years after completion of CTP PO for control of records created and / or retained by suppliers / vendors and make available for review upon request.
- Q24** **ITAR & EAR REGULATIONS :** Supplier / Vendor is to meet and to flow down the requirements of ITAR (International Traffic in Arms Regulations) and EAR (Export Administration Regulations).
- Q25** **FOD PREVENTION :** Supplier / Vendor to provide / inspect parts free from Foreign Object Debris & Damage per AS9146 for all Boeing, Subaru, Korean Air, Northrop and Lockheed purchase orders. NAS 412 FOD Prevention Requirements will be identified on the face of the PO when applicable.
- Q26** **DPAS Rating (Defense Priorities Allocation System) :** DO-A1 , DO-D1,
- Q27** **QUALITY PURCHASING DATA REQUIREMENTS:** Boeing form X31764 is being flowed down as is applicable.
- Q28** **RISK MANAGEMENT:** Supplier / Vendor are to review their processes and address Risk Management.
- Q29** **COUNTERFEIT PARTS PROTECTION:** Supplier / Vendor to control and prevent Counterfeit parts (Ref. Cal Tech QWI-126)
- Q30** **NADCAP Approved Processor:** Certification must include a statement of " Source utilized based on current NADCAP accreditation " Supplier is to notify Cal Tech Precision if NADCAP approval status is changed.
- Q31** **LEAD-FREE MATERIAL CONTROL:** Supplier/Vendor to meet Lead-Free Mitigation/Control requirements (If Applicable)
- Q32** **DISTRIBUTOR QUALITY REQ'MTS:** Distributor Quality System is to comply with AS9100 and/or AS9120 (If Applicable)

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- Q33** **DPAS & DFARS REQUIREMENTS:** DPAS 15 CFR 700, DFARS 252.225-7007,-7009,-7001,-7006,-7013,-7016,-7021,-7033,-7048, 7052 DFARS 252.204-7008 (If applicable)
- Q34** **PERSONS AWARENESS:** Supplier shall ensure that persons who perform work are aware of their contribution to product conformity, product safety and the importance of ethical behavior.
- Q35** **CONTROL OF SUPPLIER'S SUB-TIER:** Suppliers are to control their direct and sub-tier external providers to ensure that requirements are flowed down and that the sub-tiers are meeting requirements.
- Q36** **CONTROL OF DIGITAL DATA:** Purchase orders containing this clause indicate that the supplier must comply with the latest revision of Cal Tech Precision's customer requirements. If the Supplier receives, downloads and or utilizes Cal Tech Precision's customer (Boeing (737, P8, 747, 777, 787), Northrop (F35), Lockheed (F35), Spirit Aerosystems (737, P8, 747, 777, 787) DPD / MBD geometry in any format then the Supplier shall conform to the applicable customer's Quality Assurance Standard for Digital Product Definition. The following is a list of applicable customer requirements for MBD/DPD data:
- 1.) Boeing document D6-51991 Quality Assurance Standard for Digital Product Definition at Boeing Suppliers.
 - 2.) Northrop Grumman SQARSUP-0100 SQAR Supplement for the Control and Use of Digital Datasets
 - 3.) Lockheed Martin QX Supplier Quality Requirements & TMS-MC-015
 - 4.) Spirit Aerosystems MAA1-10042-1 / MAA1-10009-1(DPD/MBD)
 - 5.) Cal Tech Precision QWI-42-3 Control of Digital Data

Note 1: Digital Product Data (DPD) provided to certain suppliers may be considered as "for reference only" unless supplier is approved to handle DPD in accordance with the Cal Tech Precision's requirement for MBD/DPD Controls. Partial or Full approval may be granted depending on the Supplier's capabilities and procedural controls.

Note 2: Suppliers developing NC Programs from Cal Tech Precision supplied DPD/MBD data shall ensure traceability from the NC Program to the original DPD/MBD dataset.

Note 3: Cal Tech Precision reserves the right to evaluate the Supplier's DPD system to determine if the Supplier has adequate documentation, hardware/software, equipment, and inspection capabilities and are in compliance with specified DPD requirements. Supplier shall flow down these requirements to their Sub-tier Suppliers.

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Revision Record

Revision	Issue Date	Changes	Approval Authority
D	06-14-09	Revised Clause : Q16 RIGHT OF ENTRY : Cal Tech, our Customers, Government and Regulatory Authorities involved in the order.	William Sim
E	01-08-10	Added Clause : Q26 <u>PAS Rating</u> (Defense Priorities Allocation System) : DO-A1 , DO-D1,	William Sim
F	03-31-10	Added Clause : Q27 QUALITY PURCHASING DATA REQUIREMENTS (FOR BOEING ONLY) FORM # QF-146	William Sim
		Revised Clause : Q20 Incorporated ISO-9001:2008	
G	10-17-11	Revised Q25 FOD Prevention : Supplier/Vendor to inspect parts free from Foreign Object Debris & Damage and NAS 412 requirements.	William Sim
H	12-14-11	Added Q28 and Q29 Risk Management and Counterfeit Parts Prevention	William Sim
	03-05-12	Reviewed. No Change Made.	
I	05-17-12	Revised : Q21 : Added " Key Characteristic " Q27 : ADDITIONAL QUALITY PURCHASING DATA REQUIREMENTS – FORM # QF-146	William Sim
J	6-15-12	Added Q30 – <u>NADCAP Approved Processor</u> : Certification must include a statement of "Source utilized based on current NADCAP accreditation "	William Sim
K	3-6-14	Q23 : Record Retention – Min. 10 Years	William Sim
L	8-28-15	Revised Clause - Q25 & Q27 <u>Q25 FOD PREVENTION:</u> Supplier / Vendor to inspect parts free from Foreign Object Debris & Damage and D6-85622 & NAS 412 FOD Prevention Requirements. <u>Q27 QUALITY PURCHASING DATA REQUIREMENTS - Form – X31764</u>	William Sim
M	4-12-17	Added Q34 : PERSONS AWARENESS (AS9100D requirement) Added Q35 : CONTROL OF SUPPLIER'S SUB-TIER : Suppliers to control to their direct and sub-tier external providers to ensure that requirements are met.	William Sim
N	2-25-19	Revised Q11 and added : Flight Safety Part Program requirements spec. EPB 17-119 when required by customer	William Sim
O	1-8-2021	Added Clause 1c and updated clause Q2, and Q25	Omar Khan
P	6-26-2023	Added clause Q36 Control of Digital Data	Omar Khan
Q	12-12-2023	Revised clause number 15 to cover NOE, Work Transfer, Rejection Notification and No Alternate Material / process substitutions allowed unless approved by Cal Tech Precision and its respective customer. Added Boeing D607 Clause to number 15	Omar Khan
R	2-9-2024	Revised clause Q25 FOD to removed outdated D6-85622 ref.	Omar Khan
S	3-27-2026	Revised Clauses Q17 and Q1b to include additional requirements.	Wayne Fortier