

Advanced Precision Machining Inc.
SUPPLIER QUALITY ASSURANCE REQUIREMENTS (Rev. NC)

THE QUALITY CLAUSES SPECIFIED IN THIS DOCUMENT ARE PART OF THE TERMS AND CONDITIONS OF THE PURCHASE ORDER FOR WHICH THEY ARE REFERENCED. FAILURE TO COMPLY MAY RESULT IN WITHHOLDING ACCEPTANCE OF SHIPMENT OR DELAY IN PAYMENT OF INVOICE.

Control of Quality - (Quality Clause: Q100). The supplier is required to provide and maintain an inspection and Quality Control System commensurate with the complexity and reliability of the product to be supplied, and with the quality requirements of the Purchase Order. The system employed shall be subject to verification by Advanced Precision Machining Inc..

Quality Program Requirements – (Quality Clause: Q101). The supplier shall maintain a Quality Assurance System compliant with the requirements of ISO 9001:2008, or AS9100C or as approved by APM Quality Manager.

Inspection system Requirements – (Quality Clause: Q102). The supplier shall maintain an inspection system compliant with the requirements of ISO-9001:2008.

Calibration System Requirements – (Quality Clause: Q103). The supplier shall maintain a calibration system compliant with the requirements of ISO 17025:2005 and ANSI/NCCL Z540-1.

First Article Inspection – (Quality Clause: Q200). A dimensional inspection report is to be performed by the supplier and a copy of the report is to be submitted with the first shipment of parts to Advanced Precision Machining Inc..

This report is the supplier's responsibility and is required to show proof of conformance to APM Inc. Products drawing and specifications. FAI per AS 9100C/AS9102 is required as directed by PO line item.

Special Process Certification required – (Quality Clause: Q300). Each shipment shall be accompanied by a signed certification indicating that the special process was performed in accordance with the specified industry standard or specifications, inspection and test reports are on file and available for review. Anodizing facility must be NADCAP or ISO 17025 certified.

Chemical & Physical Test reports – (Quality Clause: Q301). Each Shipment shall be accompanied by a copy of the original test report containing quantitative data for the material supplied or used in the manufacture of the product.

Certificate of Conformance – (Quality Clause: Q302). Each shipment shall be accompanied by a signed certification (signature in blue ink only) which will include current drawing revision, quantity of the lot, Purchase Order Number, part number and the current drawing revision indicating the material or product meets requirements of all applicable drawing, specifications, standards and Purchase Order.

Shelf Life Certification - (Quality Clause: Q303). Compliance statement must be received stating that no more than 25% of the usable shelf life expired when delivered. Signed Certification in blue ink shall be supplied with each shipment indicating cure and/or manufacture date and expiration date shall be marked on product or on packaging.

Inspection/Functional Test report - (Quality Clause: Q304). Shall accompany each shipment showing the inspection and functional test report, which reflects the quantitative data on which the product acceptance was based. Reports shall identify the product by Serial Number or other traceable means.

Forbidden Materials Clause – (Quality Clause: Q305). Supplier to provide materials per DFARS 252.225 specialty metals. Supplier warrants and represents that none of the following metals or chemicals have been used in the manufacture of product sold to APM: asbestos, 1,1,1.trichloroethane, lead, chromium, CFC-12, radioactive material, mercury, polychlorinated biphenyls, cadmium, pentabromodiphenyl ether, or octabromodiphenyl ether as regulated by US and International laws and agreements.

Oxygen Compatible Elastomers & Lubricants - (Quality Clause: Q306). Products offered containing elastomers and/or lubricants must be considered compatible with oxygen. Listing of all elastomeric compounds and/or lubricants contained in the products offered is to accompany each shipment of the product.

Flammability Test Requirements – (Quality Clause; Q 307). APM is to receive 14 CFR 25.853 flammability data for vertical and/or horizontal flame testing before any assembly work is authorized at APM or another assembly facility. Once the data is accepted by APM Quality, Quality Control will e-mail Purchasing to initiate the assembly order. Test results are to be kept at supplier's facility for a minimum of four years.

Advanced Precision Machining Inc. Source Inspection – (Quality Clause: Q400). The supplier shall notify Advanced Precision Machining Inc. Procurement at least (72) hours prior to the start of final inspection and/or acceptance test to facilitate witnessing by a Advanced Precision Machining Inc. Quality Assurance representative.

Government Source Inspection – (Quality Clause: Q401). Government source inspection is required prior to shipment. Upon receipt of this order promptly notify the Government Representative who normally services your facility so that the appropriate planning for the inspection can be accomplished.

Government/Advanced Precision Machining Inc. Customer Review of Performance – (Quality Clause: Q402). Inspection and manufacturing processes are subject to review verification and analysis by authorized government and/or Advanced Precision Machining customers.

Advanced Precision Machining Inc. Source Surveillance Inspection – (Quality Clause: Q403). Advanced Precision Machining Inc. reserves the right to survey any and all work performed on this order at the seller's facility. Unless otherwise notified release or shipment under this purchase order will not be withheld for Advanced Precision Machining Inc. source surveillance.

FAA Source Surveillance - (Quality Clause: Q404). Suppliers of articles/services defined in this purchase order are subject to surveillance and/or evaluation by the Federal Aviation Administration.

Supplier Controlled Products/Process - (Quality Clause: Q500). Notify Advanced Precision Machining Inc. Procurement prior to incorporating any change or substitutions for product ordered. Changes to fixtures, tools, molds, dies or other process controls, which affect fit, form, or function must have written Advanced Precision Machining Inc. approval.

Sampling Inspection - (Quality Clause: Q600). Statistical sampling Inspection may be employed in accordance with approved sampling (ANSI/ASQ Z1.4, ANSI/ASQ Z1.9) on non-critical characteristics of the product. The use of other sampling plans or schemes is prohibited unless approved by Advanced Precision Machining Inc..

Special Inspection instructions – (Quality Clause: Q700). Special instructions apply. These instructions are provided by a separate document and are not specifically detailed by Advanced Precision Machining Inc. drawings, specifications or standards. The supplier is required to follow such instructions during the manufacture and inspection of the product.

Workmanship Quality - (Quality Clause: Q701). Finishes of threads, ports, orifices, sheet metal surfaces and intersecting holes shall be free of chips, tumbling media, cracks, and loose or hanging burrs. Material shall be protected for shipment. Areas having a designated surface finish shall be free of irregularities beyond specified acceptance limits. No sharp corners or edges. There shall be no scratches, gouges, dents, cracks, etc on a machined surface including bar stock or natural surface. Levels of optical magnification to be used shall be provided by special inspection instructions. No Anodized Plating contact points can be seen on displayed surfaces or exhibited on sealing internal surfaces. **Verify anodize color is per print. Anodizing facility must be NADCAP certified and/or ISO 17025 certified. No-Go thread engagement shall be no more than 1.0 to 1.5 turns to feel of drag.**

Surface Texture – (Quality Clause: Q702). Surface roughness, waviness, and lay characteristics shall conform to American Standards ANSI/ASMI B46.1 and must be free of flaws and surface irregularities. Bead blasted surfaces must be uniform across all surfaces and corners on containers, lids, and other aluminum product that this clause is invoked.

Critical characteristic – (Quality Clause: Q703). 100% inspection is mandatory for all critical characteristics classified as “Key” or critical.

Key Characteristics – (Quality Clause: Q704). Statistical methods such as SPC or other statistical techniques must be used to monitor characteristics classified as “key”.

Test Specimens - (Quality Clause: Q800). Specimens of materials or products shall be furnished for Advanced Precision Machining Inc. verification testing. Specimens shall be of the type, configuration, and quantity by Advanced Precision Machining Inc. drawings, specifications and test standards.

Source/Specification Control – (Quality Clause: Q801). Substitutions, alternatives or equivalents are not to be made for material, product, processes or sources of same without prior written approval of Advanced Precision Machining Inc..

Non-Conforming Products - (Quality Clause: Q802). Are to be identified and segregated for review and disposition. Notify Advanced Precision Machining Inc. Procurement of such variances at earliest time possible for Advanced Precision Machining Inc. Material Review Board MRB action. *Shipment of product, which fails to conform to Advanced Precision Machining Inc. drawings and specifications, is prohibited without written MRB authorization from Advanced Precision Machining Inc..*

Supplier flow down to Sub-tier vendors. (AS9100C) – (Quality Clause: Q803). Metal finishing suppliers must meet ISO 9000, AS9100, or NADCAP certification. APM shall describe the applicable requirements for the supplier to flow down to a sub-tier vendor through the purchasing documents, including key characteristics. Documents created and retained by a supplier/sub-contractor shall be maintained to substantiate, as applicable; procurement, production, calibration, certifications, chemical and physical properties, inspection, acceptance and other traceable information pertaining to the product produced and or delivered. These shall be retained by the supplier/sub-contractor for a minimum period of 10 years or that stipulated by the customer/regulating authority requirements. This requirement will be flown down via the Purchase Order Quality Assurance Clauses issued reference P-7.4 Purchasing. Records shall be made available for review by customers and regulatory authority in accordance with contract or regulating authority upon request.

Advanced Precision Machining Inc./Government Owned Tooling & Fixtures – (Quality Clause: Q900). Tooling and fixturing used during the performance of this Purchase Order shall be maintained and stored in such a manner as to prevent damage and deterioration. Periodic tool inspection is to be performed with records of results maintained by the Supplier. Notify Advanced Precision Machining Inc. Procurement should tooling require repair, rework or replacement.

Advanced Precision Machining Inc. Loaned Inspection Equipment – (Quality Clause Q901). Standard gauging or other equipment is provided for use by the supplier during the performance of their Purchase Order. Equipment is to be maintained and used in a manner to prevent damage and deterioration. A calibration frequency is provided for equipment supplied. In the event this equipment remains at the supplier's facility beyond its scheduled calibration date, the Supplier is responsible to provide for such calibration and obtain a Certification of Calibration for the equipment, or return the equipment to Advanced Precision Machining Inc. for calibration. Exceptions are to be approved by Advanced Precision Machining Inc. Quality Assurance.

Contamination Control – (Quality Clause: Q902). Components and/or assemblies being supplied have LIFE SUPPORT BREATHING APPLICATION. Product shall be cleaned and made contaminant free to the level specified by Advanced Precision Machining's drawings and specifications. Packaging used shall maintain the required state of cleanliness during shipment and storage.

Advanced Precision Machining Inc. Supplied Materials (Quality Clause: Q1000). The Supplier is to certify in writing that only Advanced Precision Machining Inc. materials were used in the manufacture or fabrication of the parts identified on the Purchase Order.

Defense Rated Order – (Quality Clause: Q1100). This is a rated order for national defense use, and you are required to follow all the provisions of the defense priorities and allocations system regulations (15CFR350).

Packaging - (Quality Clause: 1022). Packaging shall be in accordance with all applicable drawings, specifications and special packaging instructions. If specific packaging instructions are not imposed, the best commercial practices must be used to prevent damage.

Please contact Advanced Precision Machining Inc. Quality Department (949-650-6113), if product that has been subcontracted to a APM approved supplier cannot comply with the Quality Clauses identified on your purchase order.

REV	DESCRIPTION OF CHANGE	DATE	APPROVAL
NC	Initial Release	12/12/16	Sean Mcaig