



## Supplier Quality Requirements (AS9100)

The Supplier requirements below apply to all Suppliers and sub-tier Suppliers to Advanced Precision Machining, aka APM from this point further, providing raw materials, manufactured components and products as well as performing material processing such as, but not limited to: heat treating; chemical processing; surface enhancements; nondestructive and destructive testing; coatings; welding; and nonconventional machining processes. Acceptance of a Purchase Order from APM binds the Supplier to the Terms and Conditions listed in the Purchase Order and the requirements listed in this document. Note that these requirements correspond with the requirements of APM's customers and with the requirements of AS9100.

- a. the processes, products, and services to be provided including the identification of relevant technical data (e.g., specifications, drawings, process requirements, work instructions)**

Refer to APM's Purchase Order and / or the Acknowledgement provided by Supplier.

For Purchase Orders specified as DFAR or DFARS (Defense Regulations Acquisition Regulations System), the following clauses are incorporated in their entirety:

- DFARS 252.225-7008 and
- DFARS 252.225-7009 and
- DFARS 252.225-7010 and
- DFARS 252.225-7012

The latest version of these can be found at:

<http://www.acq.osd.mil/dpap/dars/dfars/html/current/252225.htm>

- b. the approval of products and services; methods, processes, and equipment; the release of products and services;**

Each shipment must be accompanied by one legible copy of a statement of conformance unless otherwise noted in the Purchase Order. A certificate of conformance (C of C), supplied with the shipment must provide at a minimum: Supplier name, part number, purchase order number, quantity of parts, engineering revision, serial numbers (if applicable), and title and signature of authorized Supplier representative.

- Material certifications shall show quantitative analysis of each element and physical testing as required by specifications referenced. Certifications must reference related specifications required by a drawing and list full chemical/physical properties and source.



- Certification of heat treatment must show the type of treatment and specifications, hardness range, percentage of parts tested, tensile test results (as applicable by part), type of test performed, specifications and any other information required by the drawing/specifications. A laboratory performing a test shall be identified and any certifications signed by tester. Name of heat treat Supplier must be shown.
- Process Certificate of Conformance must reference the process specification. Magnetic Particle Inspection/Penetrant Inspection Certificates shall reference specifications used, number of pieces tested, with results and signed by a certified tester and must indicate level to which it is certified.

Traceability for Raw Material is required and shall be retained and provided to APM with product.

**c. competence, including any required qualification of persons;**

Supplier will ensure that employees and people working on its behalf are competent and trained in accordance with the requirements.

**d. the Supplier's interactions with APM;**

In addition to the other requirements recorded within this document, Suppliers shall hold all information received from APM in confidence and no third-party request for information will be authorized unless approved by APM in writing.

**e. control and monitoring of Supplier's performance will be monitored by APM;**

APM will score Suppliers based on Quality, Delivery, and/or Service. Suppliers will be issued corrective actions as warranted. Suppliers demonstrating late shipments or corrective actions in a single quarter will be reviewed at Management review meetings for increased action at Management's discretion. Any outcomes will be documented in Management Review Meeting Minutes. Suppliers that fail to perform in these areas may receive further Corrective Actions and may be considered for probation or removal from APM's Approved Supplier List.

**f. verification or validation activities that APM, or its customer, intends to perform at Supplier's premises;**

APM and its customers reserve the right to perform verification and/or validation activities at the Supplier's premises.



**g. design and development control;**

Design has been excluded from scope

**h. special requirements, critical items, or key characteristics;**

- As per the requirements of AS9100, Supplier is responsible for the validation, and periodic revalidation, of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement.
- Nadcap stands for National Aerospace and Defense Contractors Accreditation Program. Nadcap's membership consists of "Prime Contractors" who coordinate with aerospace accredited suppliers to develop industry-wide audit criteria for special processes and products. The Nadcap Program is administered by the Performance Review Institute (PRI). Information on Nadcap requirements is found at

<https://www.eauditnet.com/eauditnet/ean/user/login.htm>

Suppliers supplying special processes listed with processing specifications listed on the blueprint and covered under Nadcap requirements are required to be Nadcap certified or use a Nadcap approved supplier.

If indicated in the Purchase Order and or engineering drawing that a NADCAP approved Supplier is required, the Supplier must not perform any work or process any part if they are not NADCAP approved. Should a Supplier have a change to their NADCAP certification or accreditation, the Supplier MUST notify APM per the terms of the NADCAP requirements.

**i. test, inspection, and verification (including production process verification);**

For calibration Purchase Orders, all gauges and instruments must be calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technology, the General Conference of Weights and Measures, or fundamental or natural physical constants. All provided calibration certifications must specifically state this traceability. Supplier will maintain a quality/inspection system that will ensure all goods and services conform to contract requirements whether manufactured or processed by Supplier or procured from Sub-Tier Suppliers and that fully complies with the requirements of AS9100.



- j. **the use of statistical techniques for product acceptance and related instructions for acceptance by APM;**

The Supplier will use a C=0 sampling plan with an AQL of 1 or 100% inspection, unless otherwise specified or agreed upon in writing by APM.

- k. the need to:

- **implement a quality management system**

APM requires that the supplier maintain a quality system in compliance to recognized Quality Management Systems listed below or approved by APM.

- AS9100, ISO-9001, AS9120, ISO13485 or NADCAP

- **use of customer designated or approved external providers, including process sources (e.g., special processes);**

When required by APM or by APM's customers, Suppliers will use customer-specified sources.

- **notify APM of any nonconforming processes, products, or services and obtain approval for their disposition;**

APM will not accept Supplier product that does not meet engineering drawing and/or Purchase Order requirements. Supplier product discovered after shipment by the Supplier to be nonconforming to any engineering drawing and/or Purchase Order requirement shall be immediately disclosed to APM upon discovery, including but not limited to quantity shipped, date shipped, and the extent of the nonconformance. Suppliers that receive notification of Nonconforming product shall take appropriate action to contain the nonconforming condition and prevent it from occurring again. The Supplier will be notified if formal Corrective Action is required to be submitted to APM. The response shall be submitted within 1 week of issue or a time frame agreed upon between APM and the Supplier. Errors with paperwork shall be resolved within 24 hours.

- **prevent the use of counterfeit parts;**

To prevent the purchase of counterfeit or suspect/unapproved products and to ensure product identification and traceability (and for other reasons), Supplier will institute controls that include the requirement of Material Certificates, Certificates of Conformity, and/or other supporting documentation as is appropriate. Material



and part substitutions are not allowed. See AS6174 “Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel” for additional reference.

- **notify APM of changes to processes, products, or services, including changes of their external providers or location of manufacture, and obtain APM’s approval;**

Supplier will notify APM of any change in ownership, management, or location and are subject to re-survey and approval. Supplier will notify APM of any product or process changes or changes in approval status that affect APM’s product and are subject to re-survey and approval. It is the supplier’s responsibility to develop a system that tracks and determines when a FAI is required.

- o **AS9102 First Article Inspection is required when;**
  - New part or supplier
  - Part Revision
  - Process Change
  - Lapse in production for more than 2 years.

- **flow down to external providers applicable requirements including customer requirements;**

Suppliers shall flow-down to Sub-Tier Suppliers the applicable requirements as required by the purchase order either specifically or by reference.

- **provide test specimens, inspection/verification, investigation, or auditing;**

When requested by APM or its customers, Supplier will provide test specimens for inspection/verification, investigation and/or auditing purposes.

- **retain documented information, including retention periods and disposition requirements;**

Unless otherwise specified on the Purchase Order, the latest specification revision in effect at the time the lot of raw material/parts was originally manufactured or processed shall apply. In the event a document has been superseded, the latest revision of the superseding document shall apply. All certifications, test reports, and inspection reports, as well as receiving inspection, in process inspection, final inspection, and calibration records shall be retained for a minimum of ten years,



unless otherwise specified by APM. These records will be made available to APM, APM's customers, or regulatory agency upon request.

**– prevent Foreign Object Debris**

Supplier is required to establish and maintain a Foreign Object Debris (FOD) prevention program that employs appropriate housekeeping practices to assure timely detection and removal of residue/debris generated, during operations and normal daily tasks.

**i. the right of access by APM, APM's customer, and regulatory authorities to the applicable areas of facilities and to applicable documented information, at any level of the supply chain;**

APM and APM's customers reserve the right to perform an on-site inspection of the Supplier's facility or visit the facility. APM will give reasonable notification to the Supplier prior to the on-site inspection. The on-site inspection may include surveillance of the Supplier's facilities, procedures, production methods, processes, and the Supplier's Quality System. The Supplier shall furnish, at no cost, the necessary data as required by applicable drawings, Purchase Order, specifications, and inspection instructions to facilitate the on-site inspection.

**m. ensuring that persons are aware of their contribution to product or service conformity; their contribution to product safety; the importance of ethical behavior.**

Supplier must be committed to the highest standards of ethics and business conduct. Supplier must comply with the law, honor commitments, act in good faith, and be accountable. Supplier must strive to maintain full compliance with all laws and regulations applicable to the operation of the business and customer relationships. Supplier must not offer, promise, authorize, or provide, directly or indirectly, anything of value (including business gifts or courtesies) with the intent or effect of inducing anyone to engage in unfair business practices. Supplier will avoid involvement in activities that may be perceived as a conflict-of-interest. Supplier will respect the legitimate proprietary rights and intellectual property rights of customers and Suppliers and take proper care to protect sensitive information, including confidential, proprietary and personal information. Supplier will support product safety by ensuring robust management of special requirements, critical items and key characteristics. If there are concerns with respect to product safety, Supplier will communicate them to APM. If there is a concern at the Supplier's premises with respect to safety during the manufacture of the product, Supplier will notify its own employees of the concern and whenever possible, mitigate the concern.



Supplier will ensure that employees and people working on its behalf are aware of:

- Their contribution to product or service conformity
- Their contribution to product safety
- The importance of ethical behavior

REV	DESCRIPTION OF CHANGE	DATE	APPROVAL
NC	Initial Release	12/12/16	Sean McCaig
A	Added "The supplier shall request APM disposition of the aforementioned records on or before the scheduled date of destruction. APM will then instruct the supplier to either destroy or forward the records to APM for continued storage (if required)" to the end of clause 802.	5/20/18	Sean McCaig
B	Complete rewrite in accordance with AS9100D	6/28/19	Mike Valeriano