

 <p style="text-align: center;">ALTA Precision Inc. Quality Procedure</p>	<p>Procedure QAP 7.4.2 Issue 7 Date September 28, 2015 Page 1 of 5</p>
<p style="text-align: center;">ALTA Quality Requirements for Suppliers</p>	<p>Prepared and issued by Marc Dumouchel Approved by Sonia Alonso <i>(signatures on file)</i></p>

## 1. Scope

Alta Precision is active in the supply of critical parts and assemblies for the Aerospace industry. This procedure identifies the quality requirements applicable to suppliers of products and services affecting parts quality.

## 2. Reference documents

SAE AS 9100C	QMS Requirements for Aviation, Space and Defense Organizations
SAE AS 9102A	Aerospace first article inspection requirements
SAE AS 9120A	QMS Requirements for Aviation, Space and Defense Distributors
ISO 10012-2003	Measurement management systems – Requirements for measurement processes and measuring equipment
MIL-PRF-16173 Document 300	Corrosion Preventive Compound, Solvent Cutback, Cold-Application, Goodrich, Supplier and product quality requirements
LAT 7-8202	Liebherr, quality assurance requirements for suppliers of complete parts
LAT 7-9003	Liebherr, quality assurance requirements for extended bench suppliers
SREQ-001	Messier-Bugatti-Dowty Process requirements in developing excellence
HPS-010	Heroux-Devtek Quality assurance requirements for suppliers

## 3. Requirements

### 3.1. Requirements for the Aerospace industry

Suppliers shall maintain a quality system in conformity with the following standards:

- ISO 9001 for raw materials and products distributors and for shop assist suppliers
- AS 9120 for distributors of Aerospace standard components
- AS 9100 for suppliers of complete parts made to customer design
- AS 9100 and NADCAP accreditation for sub-tiers performing controlled processes

### 3.2. Purchase order information

When Alta customer is identified on the purchase order or related engineering documents, the quality requirements of Alta customer are applicable to the purchase order in addition to the clauses of this procedure, namely: Document 300 for Goodrich; HPS-10 for Heroux Devtek; LAT 7-8202 or LAT 7-9003 for Liebherr, SCREQ-001 for Messier-Bugatti-Dowty.

### 3.3. Supplier communication

Subjects affecting product quality or delivery status shall be discussed with Alta supplier contact. Direct communication between suppliers and Alta customer is not permissible unless authorized by Alta quality department on a case by case basis.

Procedure QAP 7.4.2	Date	Issue	Page
ALTA Quality Requirements for Suppliers	28 Sept 2015	7	2

### 3.4. Right of access

Alta Precision personnel, Alta customer representatives and regulatory authority representatives shall be granted right of access to supplier's facility and quality records, for audit or verification purposes for the duration of the contract or afterwards as deemed necessary.

### 3.5. Controlled goods program and confidentiality clause

a- All documents provided for the purpose of submitting a quotation or fulfilling purchase order requirements, are customer property and should be considered of a strictly confidential nature.

b- Engineering documents related to military contracts are subject to ITAR or Canadian controlled goods program. Documents under those contracts are identified with 'Export control' or similar wording. The supplier shall maintain a register of employees having access to those documents.

### 3.6. Supplier information

a- Suppliers are requested to complete the form API-078 information and acknowledgement sheet and return it to Alta quality department in cases of a new supplier; a revision to this procedure or a significant change in supplier processes or capabilities.

b- The supplier is responsible for informing Alta Precision within 10 days, of any major change in ownership, management structure, resources or quality system.

### 3.7. Specifications and techniques revisions

The latest revision of any specification, standard or supplier approved technique called up on purchase orders or accompanying documents is applicable, unless otherwise mentioned on Alta purchase order or in the subject document. Supplier certificates of conformity must indicate the revision level of specifications and techniques to which parts have been processed.

### 3.8. Manufacturing process and technique approvals

a- Prior to order execution suppliers shall submit to Alta their manufacturing and control plans and special process techniques for approval. This clause is applicable to class 1 parts and to designated parts, deemed critical by Alta or customer.

b- Alta or customer approval does not relieve the supplier from his responsibility in meeting all design and specification requirements. Departure from requirements shall be approved through requests for concession or waivers. Revisions shall be approved through the same process.

### 3.9. Non-conforming material, part or process

a- Non-conforming parts or materials shall be reported to Alta on supplier or Alta form. The form will be forwarded to supplier contact for processing and disposition by Alta Quality or Alta Customer prior to delivery.

b- Suppliers will be charged for inspection and rework costs associated with non-conforming hardware or poor workmanship.

c- Suppliers of non-destructive tests and surface processes must evaluate the effects of cleaning (etching) cycles on parts to minimize the risks of deviations on hardware. Bores shall be protected during cleaning processes when indicated on the purchase or in case of reprocessing. The

Procedure QAP 7.4.2	Date	Issue	Page
ALTA Quality Requirements for Suppliers	28 Sept 2015	7	3

supplier must contact Alta quality department in case of any concern on the effects of cleaning cycles on bores and other features with tight tolerances.

d- Non-conforming product or process affecting product, detected by the supplier after delivery, shall be reported to Alta within 24 hours.

### 3.10. Preventive and corrective actions

a- Requests for corrective and preventive actions following a discrepancy shall be handled in a timely and efficient way to avoid re-occurrence.

b- Delivery delay is a deviation from contract requirements and may be subject to corrective and preventive action requests by Alta quality or purchasing personnel.

### 3.11. Risk management, Logistics solutions and Continual improvement

a- Suppliers shall maintain processes for risk identification, evaluation and mitigation and for continual improvement with the aim of improving quality, on-time delivery and pricing.

b- At request of Alta or by his own initiative, the supplier shall establish kitting, kanbans or similar logistics solutions to improve flow and reduce costs and inventory.

c- Failure modes and effects analysis (FMEA) is the preferred method to be used in the evaluation and management of Risks.

### 3.12. Machining parts from plate or bar stock

a- For parts made from plate or bar stock unique material heat lot shall be used for any production batch in order to maintain raw material traceability.

b- Material source (Mill) shall be approved by Alta quality if the supplier is not on Prime customer approved list.

c- When the raw material is supplied by Alta, extra remaining bar stock will be returned to Alta with the finished parts. Returned material shall be clearly identified (traceable).

### 3.13. Product handling and preservation

a- Supplier shall verify Alta parts for integrity and serial numbers correctness upon receipt. Parts can be either sent directly from Alta or drop shipped from another supplier. Any unusual condition or damage affecting Alta property or discrepancy in the serial numbers listed shall be reported to Alta supplier contact without delay.

b- Suppliers must develop safe handling, preservation and packaging procedures for parts at all stages of processing which include the reduction of foreign object damage.

c- The use by the supplier of packaging material with which parts were received, does not relieve him from the responsibility of protecting parts adequately during shipping back to Alta.

d- Bare surfaces of parts in process, in storage or prior to delivery must be protected with corrosion preventive oil conforming to MIL-PRF-16173 grade 2 or 3 unless otherwise indicated on Alta purchase order or associated engineering documents.

Procedure QAP 7.4.2	Date	Issue	Page
ALTA Quality Requirements for Suppliers	28 Sept 2015	7	4

### 3.14. Product / process certification and related records

a- Every shipment must be accompanied with a detailed certificate of conformity stating as applicable: Alta purchase order number and line number; part number delivered and revision level; certification date; production batch number; parts serial numbers individually listed (if applicable); approved technique number and revision level; process specification and revision level; test results; name and signature or stamp of the authorized person who released the product or process in accordance with Alta purchase order and engineering documents.

b- The following documents are considered part of the certification package: original material certificate (mill test report); certificates for special processes; test reports; key characteristics inspection results (if applicable). Those records shall bear the supplier quality inspection stamp and date as proof of review and acceptance by the supplier.

### 3.15. First article inspection reports

Manufacturers of parts shall perform First Article Inspection in accordance with AS9102A standard in cases of first time production, when a significant change occurs on the manufacturing process and when the parts have not been produced for a period of 2 years.

### 3.16. Product inspection and controls

a- All product features manufactured or processed by the supplier or under his responsibility shall be verified for conformity to requirements in order to insure that only conforming products are delivered to Alta.

b- Zero defect sampling plans may be applied on characteristics produced under controlled processes. Sampling on features having a tolerance tighter than 0.0015" or identified as key characteristics is not allowed unless a process certification program is in place with process capability of 1.33 or higher.

c- When in-process verification by the machining operator is considered part of the inspection plan it shall be supported by appropriate records and a documented procedure for operators' certification.

d- Visual inspection is required on 100% of parts to be released in order to verify conformity to requirements and acceptance criteria.

e- Alta reserves the right to review and approve suppliers' inspection plans, also known as control plans or quality plans.

### 3.17. Supplier measurement system

ISO 10012 Standard shall be used as basis for the control of measurement processes and equipment.

### 3.18. Product traceability and serial numbers control

a- Supplier shall verify and maintain individual part traceability with allocated serial numbers at all stages of the process.

b- When serialization is a requirement on a product made from bar stock, parts shall be serialized with permanent marking after roughing operations and prior to Heat treat.

Procedure QAP 7.4.2	Date	Issue	Page
ALTA Quality Requirements for Suppliers	28 Sept 2015	7	5

c- Serial numbers shall be indicated individually on supplier purchase orders to sub-tiers and on sub-tier certificates.

### 3.19. Quality records and test pieces

a- Suppliers shall retain quality records on file for a minimum period of 10 years or as required by Prime customer. Records are subject to review by Alta or Prime customers and must be legible and easily retrievable.

b- Backup tensile test pieces shall be returned to Alta with clear traceability, i.e. supplier name, heat treat batch reference and Alta purchase order.

### 3.20. Non- traditional machining

Machining by non-traditional methods (i.e. electro discharge machining; laser machining or similar) is prohibited unless authorized on the drawing or by written waiver from a competent authority.

### 3.21. Offloading operations

Offloading operations normally performed by a supplier, to another source or facility is prohibited unless authorized in writing by Alta quality.

### 3.22. Age sensitive products

a- Labels on containers for age sensitive materials and products shall have the following information: a- manufacturer's name; b- batch ID; c- storage temperature; d- specification number; e- date of manufacture and shelf life and/or expiry date.

b- Product shelf life should not have exceeded one third of total product life at time of delivery.

### 3.23. Counterfeit Product Prevention

Suppliers shall take measure to assure, counterfeit parts / material prevention and control plan using AS5553 (Section 4) and/or AS6174 (Section 3) to ensure counterfeit products are not delivered to Alta Precision (e.g. articles, components, hardware, goods, raw materials and sub-assemblies). As a minimum, the following shall be followed:

a- The suppliers shall only purchase Product to be delivered or incorporated as Work to Alta directly from Original Component Manufacturer (OCM), Original Equipment Manufacturer (OEM) and/or authorized distributor chain, aftermarket manufacturer, or authorized reseller.

b- These products shall have complete documentation that certifies the work is traceable to OCM/OEM and a copy of the traceability shall be obtained.

c- If traceability is not obtainable for a purchased product, such product shall not be incorporated into the work unless authorized in writing by Alta Precision.

d- Should the Supplier suspect a product to be counterfeit, the Supplier shall notify immediately Alta Precision buyer. The event shall be reviewed by Alta Precision and the customer shall be notified immediately through form of formal communication.

e- The supplier shall include this clause (3.23) or equivalent provisions in lower tier subcontracts for the delivery of product that will be included or supplied to Alta Precision.

Procedure QAP 7.4.2	Date	Issue	Page
ALTA Quality Requirements for Suppliers	28 Sept 2015	7	6

f- The term "Counterfeit Work" defines a Product that either is or encompasses parts that have been misrepresented of having used an approved system during design and/or manufacture. The definition shall also comprise of approved work that has attained a design life limit or has been damaged beyond repair but has either been altered or misrepresented as being acceptable.

#### **4. Document revisions**

20 Sept 2007: First issue.

29 Nov 2010: Issue 2.

26 June 2013: Issue 3. This issue contains numerous changes and additions.

14 July 2015: Issue 4. Add section 3.23 Counterfeit Product Prevention

11 Sept 2015: Issue 5. Modified para. 3.23 (d) to include form of communication.

23 Sept 2015: Issue 6. Addition of para 3.23 (f) to include definition of "Counterfeit Work"

28 Sept 2015: Issue 7. Correction of grammatical errors.

#### **5. Annex**

Form API-078 Supplier acknowledgement and information sheet.