## Apex Tool Group, LLC Dayton Operation

# Supplier Quality Requirements

Rev. L

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## **Revision Log:**

REVISION DATE	REVISION LETTER	PARAGRAPH CHANGED	DESCRIPTION OF CHANGES	INITIATED BY
02/28/2006		All New	Original Issue	T. Blauser
10/08/2006		12.0	Added verbiage for prior supplied nonconforming product.	T. Blauser
		1.0	Added verbiage for flow down of requirements	T. Blauser
09/07/2007		15.0	Added requirements for containment, C/A tracking and mistake proofing.	T. Blauser
09/19/2007		15.0	Changed C/A tracking to tracking C/A effectiveness	T. Blauser
05/05/2010		1.0	Added verbiage for right of entry	T. Blauser
08/02/2010		21.0	Added section complete for calibration services requirements.	T. Blauser
		All	Updated to remove Cooper Power Tools	T. Blauser
07/30/2012		22.0	Added section complete	T. Blauser
07/30/2014		8.0	Revised retention period requirement for quality records.	T. Blauser
11/21/2017		19.0	Revised to all special process suppliers must be NADCAP approved.	M. Marcum
12/07/2018	I	Added 23 & 24	Added both sections	M. Marcum
8/26/2020	J	1.0	Added Statement regarding process changes and work transfer. Added Note to section 20 Added retention period of minimum of 11 years to section 8. Added note on CoC requirements to section 9. Added ASQ/ANSI z1.4-2003to section	M. Marcum
9/21/2021		Updated 23 & 24	Modified description	M. Marcum
10/29/2024		Added 26	Added Customer Flow-down section	J. Skinner

## 1.0 General Requirements:

This document outlines the general, administrative, pre-production and quality requirements of which suppliers must comply when providing materials, components and services covered by a purchase order from Apex Tool Group (ATG) – Dayton Operations.

All communications relative to the requirements of this document, the purchase order, drawings and specifications shall be directed to the appropriate ATG-Dayton Operations authorized purchasing representative.

For purposes of this document the term "Supplier" has the same meaning as "Seller" and the term "Purchase Order" (PO) has the same meaning as "Contract".

This document shall apply to all purchase orders of ATG, unless noted on the ATG PO. The requirements in this document apply to all items, materials, components and services supplied under the ATG PO.

The supplier is required to flow down to all sub-tier suppliers the applicable requirements in the data package or ATG PO and the ATG Supplier Quality Requirements, including key characteristics, if applicable.

ATG, its customers, its customer's representative and/or the US Government shall be afforded the right to entry and to verify at the suppliers premises and the supplier's suppliers premises that subcontracted product conforms to specified requirements.

Verification by ATG, its customers, its customer's representatives of the US Government shall not be used by the supplier as evidence of effective control of quality by the supplier and shall not absolve the organization of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by the customer.

Supplier and Supplier's sub-tiers shall make no changes to the process and shall do no work transfers without prior written approval of ATG.

#### 2.0 Document Order of Precedence:

When in the event of a conflict in requirements between technical documents, the following order of precedence shall apply:

- 1. Purchase Order:
- 2. Supplements to drawings (redlines, ECN's, deviations, etc.);
- Drawing;
- 4. Supplemental quality assurance provisions (may modify inspection/test requirements of specifications);
- 5. Specifications identified on drawings.

The purchase order will specify the configuration requirements that are applicable to drawings and the associated revision level and supplemental drawing requirements. It is incumbent upon the supplier to determine the specification revision level.

#### 3.0 Specification Revision Level:

All items supplied under ATG-Dayton Operations purchase orders shall be produced in accordance with the latest revision / supersede level of the specifications and standards noted in the data package, unless otherwise expressly noted in the data package or purchase order.

No substitutions to material or material specifications shall be made without the approval of the cognizant product engineer. All requests for substitutions shall be made through the appropriate ATG-Dayton Operations authorized purchasing representative.

#### **4.0 Supplier Quality System Requirements:**

It is not the intent of ATG-Dayton Operations to dictate either content or format of a supplier's quality system. ATG-Dayton Operations does however, require that a documented quality system be in-place within a supplier's organization and that the defined system conforms to an accepted industry standard.

The suppliers shall develop, document, implement and maintain a quality system, which ensures compliance to contract requirements. The quality system can be patterned after or in accordance with ISO9001:2000 or AS9100:2004, or other recognized industry standards. Certification of the quality system by a third party registrar is not required but is desirable. Objective evidence shall be maintained, on file, for verification of the quality system and its effectiveness. Procedures and records shall be available for examination by authorized ATG-Dayton Operations representatives.

#### 5.0 Sampling Plans:

Unless otherwise stated in the data package or purchase order, the Acceptable Quality Level (AQL) for sampling plans shall be as follows:

Critical: 100% inspection of feature

Major: 1.0 AQL Minor: 2.5 AQL

**Note:** Reference to AQL is to be used for determining sample size only.

Suppliers shall, in all instances where lot sampling is used, inspect characteristics in accordance with the sampling plan outlined in Table 1.

Note: All sampling plans shall be C=0

Accept lot on 0 (zero) defects

Reject lot on 1 (one) or more defects

All Non Destructive Testing (NDT) inspection, (i.e. MPI, x-ray, etc.) shall not be subject to use lot-sampling plans.

C=0 sampling shall be applied to all lots presented for final acceptance. Non-standard sampling plans must be approved in writing by the ATG-Dayton Operations Quality department prior to use.

Table 1 Sampling Plan							
Lot or Batch Size	AQL Level						
Lot of Batch Size	1.0	2.5					
2 to 8	All	5					
9 to 15	13	5					
16 to 25	13	5					
26 to 50	13	5					
51 to 90	13	13					
91 to 150	20	20					
151 to 280	32	32					
281 to 500	50	50					
501 to 1200	80	80					
1201 to 3200	125	125					
3201 to 10000	200	200					
10001 to 35000	315	315					
35001 to 150000	500	500					
150001 to 500000	800	800					
500001 and over	1250	1250					

### 6.0 Statistical Process Control (SPC):

ATG-Dayton Operations encourages suppliers who are implementing and/or executing a sampling system using statistical process techniques. Such statistical data must be comprehensive enough to adequately document and validate quality conformance to the targeted characteristics. Use of SPC in lieu of sampling must be approved in writing by ATG-Dayton Operations Quality department prior to implementation.

#### 7.0 Measuring and Test equipment:

Suppliers shall establish and maintain a documented calibration system for all measuring and test equipment, which is used to verify conformity to requirements. The program shall be in accordance with a recognized industry standard such as ISO10012 or ANSI/NCSL Z540-1 and shall address the criteria described in the selected standard.

Material specifications, such as those addressing heat treatment (i.e., MIL-H-6875), may impose specific calibration requirements in addition to those identified in the preceding paragraph. When such specifications are imposed through the data package or purchase order, the supplier shall include the requirements in the calibration system.

#### **8.0 Record Retention:**

The supplier shall have a system for establishing and maintaining control of records documenting product compliance to applicable purchasing documents, drawings, specifications and standards. Records shall provide traceability to specific products and use actual data (when required by applicable specification) to indicate acceptability of the product. Inspection records are to indicate the nature (characteristic) and number of observations made (including sample plans), type of deficiencies found, quantities approved and rejected, and the disposition of deficiencies. Records shall be retained for a minimum of eleven (11) years after final shipment. At the end of the retention period, the supplier must provide ATG-Dayton Operations with the option of having the records forwarded to ATG-Dayton for retention as required by prime contract or authorizing disposal at the supplier's convenience.

#### Note:

- 1. Unless otherwise specified, documents demonstrating compliance shall be maintained on file for review at the supplier's facility. ATG-Dayton Operations retains the right to request any supporting documentation for shipments received.
- 2. Documents must be maintained for a minimum of eleven (11) years.

#### 9.0 Certificate of Compliance:

A Certificate of Compliance (C of C) shall be completed for each item manufactured. Unless otherwise specified, all C of C's shall accompany the shipment to ATG-Dayton Operations.

As required, certificates and test reports for special processes (i.e. heat treat, plating, material, etc.) shall accompany the shipment with the end item C of C. The supplier shall certify that the materials and processes used in performance of the purchase order meet all applicable drawing and specification requirements.

The C of C, signed by an authorized individual, certifies that a product or service has met all requirements of the purchase order including drawings and specifications at the prescribed revision level. The C of C shall also stipulate that mercury or mercury containing compounds were not intentionally added or did not come in direct contact with the product supplied during its manufacture.

The CoC must contain the Apex Dayton PO number, the Part Number as listed on the Apex Dayton PO, the date, an authorized signature, printed name and title.

#### 10.0 Source Controlled Items:

A source controlled drawing provides a list of approved sources of supply and the supplier's item identification for the item(s) that have been qualified and approved for use. Any change in fit, form, function and testing requirements must be submitted to the ATG-Dayton Operations authorized purchasing representative prior to implementation. Written authorization from the ATG-Dayton Operations purchasing representative is required if the approved source of supply is not utilized.

#### 11.0 Qualified Product List:

When required by contract, purchase order, or specification, items that are manufactured requiring the use of Qualified Products Lists (QPL) must be manufactured by the associated approved qualified sources.

In the event the supplier subcontracts product or services, the supplier must use approved subcontractors.

#### 12.0 Nonconforming Material:

The supplier is responsible for establishing controls to ensure that products not conforming to the purchase order are identified, segregated, dispositioned and controlled to prevent inadvertent use. In the event that nonconforming product is identified after shipment has been made, the supplier is required to notify ATG-Dayton Operations in a timely manner. Notification shall include a clear description of the nonconformity, which includes as necessary parts affected, customer and/or organization part numbers, quantities and date(s) delivered.

The supplier shall receive written authorization to ship nonconforming product from the ATG-Dayton Operations authorized purchasing representative. Shipments received without authorization shall be rejected and may be returned at supplier's expense.

In addition to its other rights and remedies, ATG-Dayton Operations may return items that it finds to be nonconforming for appropriate rework, repair or replacement.

**Note:** Suppliers shall state on the packing slip the condition of the returned product (i.e. repaired, reworked, replaced or, if no discrepancies are found by the supplier upon reinspection, "returned as is"). When items are "returned as is" the supplier shall state on the packing slip the justification for returning "as is". Items returned "as is" require prior approval from ATG-Dayton Operations.

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#### 13.0 Material Review Board (MRB):

MRB authority is not delegated unless specifically invoked in the applicable contract or purchase order. Products, which do not conform to applicable specifications, must be adequately controlled. Such nonconforming items can be shipped only after written authorization from the ATG-Dayton Operations authorized purchasing representative is obtained.

#### **14.0 Deviation Requests:**

All departures from specifications upon which the purchase order is based require the approval of ATG-Dayton Operations and/or their customer. Obtaining such approval is time consuming and costly; therefore, it is the policy of ATG-Dayton Operations not to accept discrepant material or products. Situations for deviation will be looked at on a case by case basis and will require either an Engineering Change Request (ECR) or a Request for Deviation, submitted by the supplier in accordance with ATG-Dayton Operations existing quality system requirements. Request for such departures shall be obtained through the authorized ATG-Dayton Operations purchasing representative.

#### **15.0 Corrective Action:**

The supplier is responsible for implementing quality systems capable of resolving problems adversely affecting quality and correcting those conditions. Suppliers shall determine root cause, institute measures to prevent recurrence and implement corrective action. The suppliers' corrective action system shall include measures for containment, tracking C/A effectiveness, application of mistake proofing and the use of recognized problem solving tools. The preferred problem solving tool is the 5 Why method but other methods may be used based on the suppliers existing system. Nonconforming material or quality system deficiencies detected by ATG-Dayton Operations may require the supplier to respond to Corrective Action Requests (CAR's). The CAR form is one method to notify the supplier of nonconforming items. Once a CAR is issued, response is due on or before the date identified on the CAR. Failure to respond will escalate the issue to further actions up to elimination of the use of the supplier.

#### 16.0 First Article Inspection (FAI):

#### Reference AS9102

The purpose of the First Article Inspection (FAI) is to give objective evidence that all engineering, design and specification requirements are correctly understood, accounted for, verified and recorded. Considered a full part layout, it includes measurement and verification of all dimensions, engineering specifications, material specifications, special processes and quality standards. FAI's shall be performed in accordance with AS9102 requirements and completed on forms referenced in the standard.

The supplier shall perform FAI on new product representative of the first production run. FAI shall be performed in the following circumstances:

- Initial part production;
- ➤ A change in the design affecting fit, form or function of the part;
- ➤ A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling or materials, that can potentially affect fit, form or function;
- When required as a part of a corrective action for a part number with repetitive rejection history (typically, a part with three repeated rejections or as required by customer);
- A change in numerical control program or translation to another media;
- A natural or man-made occurrence which may adversely affect the manufacturing process;
- A lapse in production for two years.

The FAI requirements may be satisfied by a partial (Delta) FAI that addresses differences between the current configuration and prior approved configurations. When a partial FAI is performed, the supplier shall complete only the affected fields in the FAI forms. Complete FAI documentation shall be submitted with the first lot shipped to ATG-Dayton Operations.

**Note:** For assemblies, the assembly level FAI shall be performed on those characteristics specified on the assembly drawing.

**Note:** The supplier shall not use prototype parts, or parts manufactured using methods different from those intended for the normal production process, for the FAI.

#### 17.0 Customer Source Surveillance (CSS):

The items and supporting quality documentation covered by an ATG–Dayton Operation purchase order may be subject to ATG-Dayton Operations source surveillance/inspection and/or witnessing of tests prior to shipment. ATG-Dayton Operations reserves the right to add CSS to any purchase order, at any time throughout the period of performance at no cost to ATG-Dayton Operations.

#### 18.0 Government Source Surveillance (GSS):

The items and supporting quality documentation covered by an ATG–Dayton Operation purchase order may be subject to Government source surveillance/inspection and/or witnessing of tests prior to shipment. ATG-Dayton Operations reserves the right to add GSS to any purchase order, at any time throughout the period of performance at no cost to ATG-Dayton Operations.

#### 19.0 Special Processes:

Suppliers performing special processes MUST be NADCAP certified on the date of processing. The use of any supplier that is NOT NADCAP certified must be approved in writing by Apex Tool Group.

Suppliers providing products that require special processes such as painting, plating, heat-treatment, NDT, etc., must use processors that are NADCAP certified on the date of the processing. The use of any supplier that is NOT NADCAP certified must be approved in writing by Apex Tool Group.

#### 20.0 Contract Deliverables:

Along with the C of C (as stated in Section 9.0) the following is a listing of contract deliverable items which are required, (as applicable), to accompany each shipment to ATG-Dayton Operations:

- Inspection/Test Data Reports;
- FAI Data Package;
- Material Certifications/Test Reports (including chemical and physical test reports);

**NOTE:** Unless otherwise stated on the ATG PO, all material shall be compliant to DFARS 252.225-7008

NDT Certification:

**NOTE:** NDT hard copy records (i.e. X-ray films, etc.), shall be kept on file and available for review at the supplier's facility.

- Heat Treat Certification;
- Plating/Painting Certification.

#### NOTES:

- 1. It is the expectation of all ATG machining suppliers that they submit inspection data that documents the parts(s) are 100% compliant to drawing.
- 2. Machining suppliers shall make NO material substitutions unless authorized in writing by the ATG Purchasing representative.

#### 21.0 Calibration Services Requirements:

Outside calibration services shall be performed by a supplier certified to ISO/IEC 17025. All gages calibrated shall be accompanied by a certificate of calibration. All gages that are found defective and cannot be calibrated shall be tagged as such and returned to ATG as "Defective". All gages requiring repair will require a quote be submitted to ATG Quality Department for approval before any work is performed on the item. Certificates of calibration reports shall include the following at a minimum:

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- > ATG gage number
- > ATG purchase order number
- Gage or item description
- Date of calibration
- Results of calibration (including as received condition)
- Out-of-tolerance conditions (if any)
- > Range/accuracy and specific serial number of the equipment used for the calibration
- > Environmental conditions at the time of calibration
- ➤ Identification of the standard used or supplier traceability to a known standard (e.g., NIST, US Naval Observatory, etc.)
- > Calibration Procedure Identification Number

Sub-contracting of calibration services by the supplier shall not be allowed without the prior approval of ATG Quality Manager or his designee.

#### 22.0 Counterfeit Parts Prevention:

Reference AS6174A

This section is applicable to all material, parts and services procured under an Apex Tool Group purchase order. All suppliers shall comply and there shall be no deviation without prior written approval from Apex Tool Group, LLC.

- a) For purposes of this clause, Work consists of those parts delivered under contract that are the lowest level of separately identifiable items (e.g., articles, components, goods, and assemblies). "Counterfeit Work" means work that is or contains items misrepresented as having been designed and/or produced under an approved system or other acceptable method. The term also includes approved work that has reached a design life limit or has been damaged beyond possible repair, but is altered and misrepresented as acceptable.
- b) Seller agrees and shall ensure that Counterfeit Work is not delivered to Apex Tool Group.
- c) Seller shall only purchase products to be delivered or incorporated as work to Apex Tool Group directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM), or through an OCM/OEM authorized distributor chain. Work shall not be acquired from independent distributors or brokers unless approved in advance in writing by Apex Tool Group.
- d) Seller shall immediately notify Apex Tool Group with the pertinent facts if seller becomes aware or suspects that it has furnished Counterfeit Work. When requested by Apex Tool Group, seller shall provide OCM/OEM documentation that authenticates traceability of the affected items to the applicable OCM/OEM.

#### 23.0 Foreign Object Debris (FOD)

Reference: AS9146

Suppliers shall have a process and training program which addresses the elimination of FOD.

## Apex Tool Group, LLC Supplier Quality Requirements

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#### 24.0 Ethical Behavior

It is the responsibility to ensure that their employees are aware of the importance of Ethical Behavior.

#### 25.0 Product Safety

It is the responsibility of the supplier to ensure that their employees are aware of their contribution to product safety.

#### 26.0 Customer Flow-downs

#### 26.1 Boeing Flow-downs

view additional Quality Information by selecting "Supplier Quality" from the menu bar of "Doing Business with Boeing" home page located at the following URL Address: <a href="http://www.boeingsuppliers.com">http://www.boeingsuppliers.com</a>. NOTE use lower case letter only for URL.

Seller shall view and apply appropriate Boeing flow-downs on Boeing Form X31764 "Quality Purchasing Data Requirements" under "Other Quality Requirements."