

- 1.0 Scope:
  - 1.1 Supplier Purchase Order and Quality Management System requirements for Carter Aerospace Bearings are contained in this document.
  - 1.2 It is emphasized that the quality management system requirements specified in this document are complimentary (not alternative) to contractual and applicable law and regulatory requirements
  
- 2.0 Purchase Order and Quality Requirements:
  - 2.1 **Order of Precedence**
    - 2.1.1 If any requirements(s) defined in this document contradict the purchase order, purchase order requirement(s) shall take precedence.
  - 2.2 **Quality Management System**
    - 2.2.1 The Seller is required to maintain a quality program that assures that all supplies and services furnished to Carter Aerospace Bearings conform to contractual requirements. Seller is to perform, or require the sub-tier suppliers to perform, all inspections and tests necessary to substantiate product conformance to all drawings, specifications, and PO requirements. The Sellers quality program shall be documented and available for review by Carter Aerospace Bearings throughout the life of the PO.
  - 2.3 **Flow Down Requirements**
    - 2.3.1 To ensure conformance to all Purchase Order requirements, Seller shall flow down all applicable requirements to Seller's sub-tier sources, when such sources are used by Seller for procurement or processing of products for Carter Aerospace Bearings.
  - 2.4 **Supplier Awareness**
    - 2.4.1 Suppliers shall ensure that they are aware of, and their employees are aware of:
      - A Their contribution to product or service conformity;
      - B Their contribution to product safety;
      - C The importance of ethical behavior.
  - 2.5 **Prohibited Sources**
    - 2.5.1 Carter Aerospace Bearings suppliers and/or sub-tier suppliers are prohibited from using any source listed on the US government Excluded Parties List System (EPLS) (ref. <https://www.sam.gov>) in the production of products to be delivered to Carter Aerospace Bearings.
  - 2.6 **Foreign Object Debris/Damage (FOD) Control Program**
    - 2.6.1 Suppliers shall maintain a Foreign Object Damage (FOD) Prevention Program compliant to AS9146 (latest revision) to ensure that the delivered products; fit, form, function, integrity, and factory new product condition is not compromised.
  - 2.7 **Suspected Unapproved, Confirmed Unapproved, and Counterfeit Parts Prevention**
    - 2.7.1 The supplier shall have a program in place to prevent the delivery of counterfeit parts and materials. All parts, materials and assemblies (electrical, mechanical, raw material) included in the hardware shall be procured directly from the Original Component Manufacturer (OCM) / Original Equipment Manufacturer (OEMs), or from the OCM/OEM authorized distributor. The supplier is responsible for the flow down of this requirement to its sub-tier contractors and their compliance to it. For guidance supplier may refer to SAE documents AS5553 (Electronics) and AS6174 (Material) ([www.sae.org](http://www.sae.org)).
    - 2.7.2 Seller shall immediately notify Carter Aerospace Bearings with the pertinent facts if Seller suspects items delivered in accordance with the Carter Aerospace Bearings Purchase Order contain suspect or confirmed counterfeit items. Seller shall notify Carter Aerospace Bearings via e-mail or telephone immediately upon discovery of suspect material. Seller is responsible to

obtain documented Carter Aerospace Bearings acknowledgement of Seller notification(s) regarding suspect material discovered in the supply chain.

- 2.7.3 Counterfeit parts are deemed to have no monetary value. Counterfeit material is considered to be non-conforming product and a Corrective Action Request (CAR) shall be issued to the seller. The parts will not be returned.

## **2.8 Special Processes Approval**

2.8.1 Special processes shall be performed by sources that are accredited by the National Aerospace and Defense Contractors Accreditation Program (NADCAP) and approved by end user (if applicable). This requirement applies whether the process is performed by the Seller or by Seller's sub-tier sources.

2.8.2 Special Processes include, but are not limited to NDT, Nonconventional Machining, Heat Treat, Plating/Coating, Welding and Chemical Processing.

2.8.3 This provision applies unless otherwise agreed to by Carter Aerospace Bearings

## **2.9 Hazardous Material**

2.9.1 Seller shall comply with requirements of RoHS and REACH as applicable.

2.9.2 All chemicals shall be accompanied by a relevant Safety Data Sheet (SDS) with each shipment.

2.9.3 Mercury or mercury containing compounds shall not be intentionally added to, or come in direct contact with, and hardware or supplies furnished under this contract.

## **2.10 Right of Access**

2.10.1 Carter Aerospace Bearings reserves right of access to Seller's & all sub-tier supplier's applicable facilities &/or records for ourselves, our customers, & all applicable regulatory authorities.

## **2.11 Notification of Changes**

2.11.1 Seller shall notify Carter Aerospace Bearings prior to any changes in product and/or process definition, changes of suppliers, change of manufacturing facility location, and, where required, obtain Carter Aerospace Bearings' approval.

## **2.12 Revision Levels**

2.12.1 All material furnished to Carter Aerospace Bearings by the Seller and its suppliers must be manufactured to and/or meet the most current revision level of the controlling part drawing/specification and its associated specifications at the time the purchase order was issued, unless otherwise specified on the purchase order. If Seller has a later revision on file than that which is specified on the PO (if applicable), Seller must notify Carter Aerospace Bearings of the discrepancy and obtain clarification.

## **2.13 ITAR**

2.13.1 Supplier agrees to comply with all applicable U.S. export control laws and regulations. The Supplier, also, agrees to indicate on packing slips and/certifications that a subject part is regulated under ITAR by typing or stamping "ITAR PART" for the respective part.

## **2.14 Training**

2.14.1 The Seller shall have established processes that ensure that employees have the requisite training before undertaking work in support of this Purchase Order/Subcontract

2.14.2 If the training requires certification of special processes (soldering, welding, heat treating, dye pen inspection, etc.) the Seller shall maintain records of training/certification and make the records available for review by the Carter Aerospace Bearings Quality Representative

## **2.15 Test, Inspection, and Verification System**

2.15.1 Suppliers shall develop inspection procedures and maintain records of inspection. Records shall include evidence of inspection for all attributes (e.g. first article inspection, acceptance test data) of products / processes supplied to Carter Aerospace Bearings, show the product has been inspected and/or tested during all stages of manufacturing, identify the name of the individual

(i.e. with stamps, etc.) who certified the results, and where applicable include the results of the inspections and tests.

- 2.15.2 The method of inspection shall be suitable and capable for each type of feature or inspection being performed (Example: measurement instruments should have 10 times the resolution of the tolerance being measured.)
- 2.15.3 Parts shall be 100% visually inspected for loose or hanging burrs, machining chips, handling damage, and FOD (Foreign Object Debris) prior to shipment.
- 2.15.4 Where variable data is used, the report shall indicate the actual values obtained
- 2.15.5 Suppliers are responsible for understanding and reducing variation within processes and are encouraged to use control-charting techniques. When control charting is not performed, sample inspection of all attributes shall be performed on a quantity of pieces per the following table.

Quantity of parts being shipped to Carter Aerospace per PO line item	Quantity to be inspected by the supplier and the "as measured" data submitted to Carter Aerospace in an inspection data report
1	1
2 – 8	2
9 – 15	3
16 – 25	5
26 – 50	8
51 – 90	13
91 – 150	20
151 – 250	32
250+	50

- A For partial or incomplete PO Line item shipments, use the above table based on the quantity of parts being shipped within the partial shipment
- B Suppliers using sample inspection plans are not relieved from the responsibility for all attributes on the part/assembly.

2.15.6 Calibration

- A Tools and equipment used in final acceptance of manufactured product shall be calibrated in accordance with the latest revision of ISO/IEC 17025 and traceable to the National Institute of Standards and Technology (NIST).
- B The Seller must retain documented information that provides evidence of monitoring and measurement equipment calibration. The retained documented information must include the required calibration register elements defined within AS9100D (see 7.1.5.2) and the results of calibration.

**2.16 Product Acceptance Requirements**

2.16.1 Prior to shipment the supplier is responsible for ensuring that 100% of all attributes on all parts produced are in accordance with the Carter Aerospace Bearings requirements. Inspection of all features shall occur throughout and/or after all machining and processing of a manufacturing lot is complete.

**2.17 First Article Inspection (FAI)**

2.17.1 When required by Purchase Order, a First Article Inspection Report (FAIR) shall be provided. Supplier shall have on file a First Article Inspection Report (FAIR) in accordance with the requirements of the current revision of SAE-AS9102. Once the ordered FAIR is provided, the Manufacturer is required to provide a new and/or updated FAIR to Carter Aerospace Bearings when any of the following events take place:

- A Engineering changes
- B Manufacturing process/source changes

- C Tooling changes
- D Change of manufacturing location
- E A lapse in production of two years

## 2.18 Certification and Full Traceability

2.18.1 When required by PO, seller shall provide a Manufacturer Certificate of Conformance, with the following (at minimum) clearly noted on it, with each shipment:

- A Vendor Name
- B Vendor Part Number
- C Carter Aerospace Bearings Part Number
- D Carter Aerospace Bearings Purchase Order Number
- E Quantity
- F Lot Number
- G Country of Origin
- H Statement of Condition

a Certify the parts are in "new" condition

2.18.2 Seller to include material certifications (also referred to as "chemical & physical test reports", or "test reports") with each shipment, providing no charges apply.

2.18.3 Seller must ensure that all certifications (Mfg. Certificate of Conformance, Test Reports, Process Certs, Raw Material, FAI, etc.) for a part are traceable to one another by either a lot number, date code, heat number, job/work order number or material P.O. number and are available upon request by buyer.

2.18.4 If Seller is not the manufacturer, all paperwork necessary to provide "full traceability" back to the manufacturer shall be provided.

## 2.19 Shelf Life Identification

2.19.1 Seller shall advise shelf life and/or expiration date if applicable.

2.19.2 All material shall have at least 75% the shelf life remaining on the product at time of receipt. Unless otherwise specified in the material specification or purchase order, each container shall be identified to include at a minimum:

- A Manufacturer Name
- B Compound & Specification Number (if applicable)
- C Batch Number assigned by manufacturer
- D Expiration Date
- E Storage Temp Requirements (if applicable)

## 2.20 Lot/Batch Control

2.20.1 All aerospace products shall have assigned a unique traceability number in the form of a lot/batch number or serialization.

## 2.21 Packaging, Marking, and Labeling

2.21.1 Packaging shall conform to the requirements of the drawing/print. All necessary steps shall be taken by seller to prevent contamination, introduction of Foreign Object Debris (FOD), and deterioration. Parts must be packaged in a manner and with sufficient cushioning to prevent damage during shipping. No newspaper or loose packaging material small enough to block internal passages, holes and/or crevices shall be used in the packaging of products.

2.21.2 All aerospace parts must be individually packaged, unless otherwise specified.

2.21.3 Supplier shall mark/label the product in accordance with the latest revision of the drawing/specification and/or purchase order.

2.21.4 Multiple lots shall be bagged/boxed/handled & identified separately and distinctly. Commingling of lots is not permissible. A manufacturing lot is defined as all parts manufactured at the same time from the same materials or processed together through all operations.

2.21.5 Packages are not to exceed 40 lbs without prior Carter Aerospace Bearings written approval

## **2.22 Nonconforming Product**

2.22.1 Seller shall notify Carter Aerospace Bearings of any nonconforming product and obtain Carter Aerospace Bearings' approval for disposition thereof in writing.

2.22.2 Seller shall maintain a positive system for controlling nonconforming material, including procedures for the identification, segregation, and disposition of reworked or repaired material. Repair of nonconforming material shall be in accordance with procedures acceptable to Carter Aerospace Bearings. All nonconforming material must be positively identified to prevent use, shipment and intermingling with good material. Nonconforming material should be held in a designated area. Any request for acceptance of nonconforming material shall be coordinated with Carter Aerospace Bearings Quality Representative.

2.22.3 The Seller shall take prompt and effective action to correct and prevent recurrence of all nonconformities, inclusive of those that occur at the Supplier's subcontractors.

2.22.4 Errors with paperwork are considered escapes. Each paperwork escape will count as one escape and a one-piece rejection against your quality score. All paperwork issues shall be corrected within one business day.

## **2.23 Continual Improvement**

2.23.1 Suppliers of aerospace and commercial products shall have a documented process for generating Corrective Actions and Process Improvement. The Corrective Action Process shall minimally include a Problem statement, Containment, Root Cause Analysis and Corrective Action Resolution. The resolution shall include Mistake Proofing to ensure the Corrective Correction Action put in place will reduce the risk of reoccurrence or at best eliminate the Problem. Corrective Action Resolution shall be review at established intervals.

2.23.2 Suppliers may use their own Corrective Action Form or request the Carter Aerospace Form.

## **2.24 Risk Assessment**

2.24.1 Seller shall utilize the current revision of the SAE Aerospace Recommended Practice ARP9134 – Supply Chain Risk Management Guideline to assess those elements other than the Quality Management System requirements that could affect the products and services being provided to Carter Aerospace Bearings. The guidelines established by SAE ARP9134 should be viewed as a business protection tool, as part of an integrated business culture, to help identify and reduce risk within the entire supply chain. It is recommended that the SCRM guidelines shall, when appropriate, be included as a flow-down requirement to the Seller's sub-tier suppliers. Carter Aerospace Bearings will use guidelines based on SAE ARP9134, to supplement existing risk management philosophies, to evaluate and reduce risks within the supply chain at both new and existing supplies.

## **2.25 Record Retention**

2.25.1 Suppliers shall retain Quality records for a minimum of (15) years from the date of manufacture unless a longer period is otherwise specified.

2.25.2 For Aerospace Products identified as Flight Safety / Critical, Seller shall maintain all quality records on file for a minimum of 40 years from the date of manufacture.

2.25.3 Quality records include the following but not exhaustive list:

- A Approved Certificates of Conformity
- B Test Reports
- C Raw Material Certifications

- D Special Process Certifications
  - E First Article Inspection Reports (FAIR)
  - F Route Cards/Travelers
  - G Calibration Records
- 2.25.4 Applicable specification and part revision level must be present on certification and test reports.
- 2.25.5 This data shall be made available to Carter Aerospace Bearings upon request, at no extra charge. Records shall be appropriately identified in accordance with customer, regulatory and company defined requirements.
- 2.25.6 Storage facilities shall provide environmental conditions to prevent deterioration or damage and to prevent loss. Records in storage shall be protected from unauthorized access.
- 2.25.7 The nature of the information in the records, as well as its format, dictates the method by which they shall be destroyed. When records contain sensitive information (such as design detail, proprietary info, ITAR restricted info, etc.), they shall be disposed by irreversible destruction methods such as shredding, or “erasure”/reformatting for electronic/magnetic media.
- 2.25.8 If seller cannot meet selected retention time, Carter Aerospace Bearings shall be notified prior to contract award, in some cases Carter Aerospace Bearings may be able to allow the Seller to ship all the records to satisfy this requirement. All deviations to this requirement must be issued in writing to Carter Aerospace Bearings.
- 2.25.9 Paperwork Corrections
- A Changes or amendments to any certification paperwork must identify the authorizing party via signature, initial, stamp or any other similar method along with amendment date.
  - B Incorrect data must be corrected by striking through the error with 1 thin line, adding the correct info, initialing (or stamping), and dating the correction.
- 2.26 Supplier Performance, Control, and Monitoring**
- 2.26.1 On-Time Delivery Window
- A Shipments that arrive on our dock up to 5 days after suppliers’ promised date, provided at time of PO acknowledgment, are considered on-time. (Exceptions: if order is early to suppliers’ promised date, but after our PO required date, order is considered on-time.) Any shipment received outside of that window may be rejected and returned at the suppliers’ expense. In addition, these shipments, whether returned or not, will negatively impact the supplier’s on-time delivery performance as indicated on our Supplier Rating Report.
  - B Carter Aerospace Bearings OTD expectations are 100% on-time. Carter Aerospace Bearings monitors suppliers OTD and may issue a formal Root Cause(s) and Corrective Action(s) Request based on supplier with continued negative trends.
- 2.26.2 Quality Performance
- A Carter Aerospace Bearings expectations are that suppliers deliver 100% on-quality products. This includes accuracy, legibility, and reproducibility of supporting documentation (i.e. C of C’s Material Certs, Special Processing Certs, etc.).
  - B Carter Aerospace Bearings monitors suppliers Quality Performance and may issue a formal Root Cause(s) and Corrective Action(s) Request based on; supplier quality performance trends, the severity and type of a quality turn-back, if one or more of Carter Aerospace Bearings’ customers are being directly affected, etc.

### 3.0 Revision Log:

REVISION DATE:	REVISION NOTE:	REVISED BY:	APPROVED BY:
06/07/2021	New Document	Sam Lipko	Jeff Berry
12/01/2022	Updated title (previously General Purchase Order Requirements), updated format, added scope, updated QMS requirements (2.2.1), expanded Counterfeit Parts Prevention (2.7.2, 2.7.3), added Training (2.14), expanded Test, Inspection, and Verification System requirements (2.15.4, 2.15.5), expanded Shelf Life (2.19.2), added packaging weight limit (2.21.5), expanded nonconforming material requirement (2.22.2, 2.22.3, 2.22.4), expanded Record Retention (2.25.8), updated on-time delivery window (2.26.1.A)	Heather Wiesenauer	Scott Berry