

B&B AIRPARTS INC. INC.

SUPPLIER QUALITY REQUIREMENTS MANUAL

Approval: QA Manager Michael Terrell

Approval: Operations Manager: Colin McGuire Revision Date Approved 5/6/2019

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1.0 Scope

- 1.1 This Supplier Quality Requirements Manual (SQRM) constitutes an extension to the contract between the Supplier and B&B Airparts INC., or one of its subsidiaries, covering the items (Products) as described in the Purchase Order. Supplier's acceptance of the Purchase Order (PO) shall constitute Supplier's agreement to the requirements in this document. In the event of any inconsistencies between the Purchase Order and the requirements set forth below, the terms and conditions of the Purchase Order shall take precedence.
- 1.2 B&B's Terms and Conditions can be reviewed by the Supplier at the website <http://www.bbairparts.com/> under the "Terms and conditions" tab or requested from the Purchasing agent representative.

2.0 Access

- 2.1 Supplier shall grant B&B (or customers of B&B or any governmental regulatory agencies) access to Supplier's premises or manufacturing facilities. This includes the freedom to witness and audit all phases of fabrication, testing, storage or goods sold to B&B, pertinent documents and records related to the contract, subject to any limitations or controls required to ensure compliance to ITAR/EAR US Governmental regulations. B&B will provide advance notice to the Supplier (typically 48 hours minimum).

3.0 Quality System Requirements

3.1 To be set up as a B&B Supplier, the Supplier shall complete the B&B Supplier Approval Questionnaire, form QAF 8.4-1, or an equivalent, and provide any other requested documentation. All of the documentation will be submitted to the B&B Purchasing agent, for Supplier Quality review.

3.2 Per AS9100 Section 8.4.3, the Supplier shall place emphasis on the need to:

- implement a quality management system (which meets or exceeds the requirements as shown in Table 1);
- use customer designated or approved external providers,
- including process sources (e.g., special processes); notify B&B of nonconforming processes, products, or services and obtain approval for their disposition; prevent the use of counterfeit parts (see AS9100 Section 8.1.4);
- notify B&B of changes to processes, products, or services, including changes of their external providers or location of manufacture, and obtain the organization's approval;
- flow down to external providers applicable requirements, including B&B and customer requirements;
- provide test specimens for design approval, inspection/verification, investigation, or auditing;
- retain documented information, including retention periods and disposition requirements;
- grant the right of access to B&B, their customer, and regulatory authorities to the applicable areas of facilities and to applicable documented information, at any level of the supply chain;
- ensure that persons are aware of:
 - their contribution to product or service conformity;
 - their contribution to product safety;
 - the importance of ethical behavior.

3.3 B&B may choose to use a Supplier that may not meet the minimum requirements, based on business needs as long as it does not conflict with the customer requirements.

3.4 When industry specifications are noted in Table 1, B&B requires 3rd Party certifications. Suppliers shall make available, a copy of their certifications to B&B. Any changes to the certifications such as a change of the registrar, update, withdrawal or disapproval must also be forwarded to B&B immediately.

3.5 Supplier shall notify the B&B purchasing agent and B&B Supplier Quality Manager in writing within 48 hours of any changes of status to its Quality Management System, relocation, or changes in top management including the Quality Management Representative.

3.6 Supplier shall maintain satisfactory performance to remain on B&B's approved supplier list (ASL). Supplier Performance Standards B&B Supplier's performance will be reviewed on a Quarterly basis. Suppliers not meeting performance standards may be subject to any of the following, as determined by subsequent review/evaluation:

- Initiation of a Supplier Corrective/preventative Action Request (SCAR)
- An on-site audit at the Supplier's facility

Table 1

	Quality System Level	Applicable Minimum Quality System Document	Supplier Description
Aerostructures	Subcontract	AS9100, EN9100 or JISQ9100	Manufacturer with design authority (Major Assemblies, Sources/Spec. Control Product); Engineering Services with design/release authority; Manufacturer (Build-to-Print)
	Partial Subcontract	AS9100, EN9100, JISQ9100, ISO9001, or Internal QMS*	Manufacturer only performing specific operations on material provided by LMI (Machining, Waterjet, etc.)
	Processors	NADCAP AC7004 or AS9100 Special Processes must be approved by LMI's customer and/or NADCAP	Processor
	Raw Material Manufacturer	AS9100 or as defined by customer	Raw Material Manufacturers
	Raw Material and Hardware Distributor	AS9120, AS9100 or ISO9001	Distributors
Tooling	Production Tooling	AS9100 or ISO9001	Tooling with design authority/Tooling (Build to print), directly relates to product conformity
	Support Equipment	N/A	Tooling that does not affect product conformity
Other	Quality Services	ISO17025 or ANSI Z540 for calibration; Internal QMS for (inspection services)	Calibration/Inspection Services, etc (e.g. CMM)
	Chemical/Material Testing	ISO10012, ISO17025 or ANSI Z540 (as applicable)	Laboratories
	Chemical, Paint, Solution, and Instrument Distributor	Internal QMS	Distributors

4.0 Configuration Management

- 4.1** Supplier shall comply with specifications stated on the face of the Purchase Order and with applicable engineering drawings, including industry, association, society, regulatory and United States Government specifications and standards. Any questions regarding requirements should be directed to the B&B Purchasing agent.
- 4.2** Supplier shall notify the Purchasing agent if any engineering revision levels received conflict with the revision levels on the Purchase Order.
- 4.3** These documents shall be controlled, maintained and issued as the latest revision in effect at the time of the Purchase Order unless otherwise stated.
- 4.4** Supplier shall maintain a change control management and verification system for documents and electronic media, including applicable government, association, society, industry and customer furnished configuration data.

5.0 Subcontracting

- 5.1** Supplier shall not enter into a subcontract for the procurement of any goods, in their complete or substantially complete form, without prior written consent of the B&B Purchasing agent.
- 5.2** Control of Sub-Tiers
 - No material substitutions, omissions or modifications will be allowed without prior written consent of the B&B Purchasing agent.
 - The Supplier will assure that all material, services, and software procured from, or performed at sub-tier Suppliers is in conformance to contractual requirements and specifications.
 - The Supplier will ensure that all such requirements/specifications are flowed down to their sub-tier suppliers.
 - All special processes must be performed by processors approved by B&B's customer (refer to Addendum A of this document for customer specific reference). Any questions regarding special process approvals should be directed to B&B through the B&B Purchasing agent.

6.0 Counterfeit Part Prevention

- 6.1** The Supplier shall have a counterfeit detection process for all electrical, electronic, electro-mechanical and electro-optical component parts that meets the intent of SAE standard AS5553, Counterfeit Electronic Parts, Avoidance, Detection, Mitigation, and Disposition.
- 6.2** The Supplier shall have a counterfeit detection process for all non-electrical standard parts, like fasteners, nuts, washers, springs, O-rings, inserts, and pins that meets the intent of SAE standard AS6174, Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material.
- 6.3** For all non-electrical standard parts, like fasteners, nuts, washers, springs, O-rings, inserts, and pins, the supplier must have a certificate from the Original Component Manufacturer (OCM)/ Original Equipment Manufacturer (OEM) or Authorized Aftermarket Manufacturer (AAM) or authorized distributor.
- 6.4** Confirmed counterfeit parts will be reported to the Government Industry Data Exchange Program (GIDEP) and applicable US Government investigative authorities.

7.0 Designs, Tools, Dies, Customer Provided Material, Etc.

- 7.1** If the goods are to be produced by the Supplier in accordance with designs, drawings, blueprints, mylars, tooling or fixtures furnished by B&B, the Supplier shall return the same to B&B at B&B's request upon completion or cancellation of this Purchase Order.
- 7.2** Such designs shall not be used by Supplier in the production of materials for any third party without B&B's written consent. Such designs involve valuable property rights and proprietary information and shall be held confidential by Supplier.
- 7.3** Unless otherwise agreed herein, the Supplier shall supply all materials, equipment, tools and facilities required to perform the requirements of the Purchase Order at its cost.
- 7.4** B&B furnished and/or owned property condition shall be identified, maintained and inspected regularly for suitability of use. Supplier shall notify B&B immediately if the property is lost, stolen, or unfit for use for any reason. B&B makes no warranties of any nature with respect to any property or data it may furnish to Supplier hereunder.
- 7.5** Property furnished by B&B shall be used solely in the performance of work ordered by B&B or the Government, if the Government has title or rights in the property.
- 7.6** Property shall be subject at all times to disposition as B&B may direct. Supplier shall maintain inventory control of all such tooling and property and to furnish inventories thereof when required by B&B.
- 7.7** Unless otherwise specified, Supplier shall be liable for any loss or destruction or damage to property furnished to Supplier by B&B. Supplier shall be responsible for returning property in a suitable for use condition as when received at a time specified in accordance with the provisions of the Purchase Order. Supplier shall notify B&B prior to destruction of any furnished materials, or equipment.

8.0 Raw Material

- 8.1** The Supplier is required to verify the correct material type, and temper (where applicable), to engineering prior to fabrication of product. Evidence of verification shall be on the Supplier's shop traveler, work order, planning, or other inspection status (including FAI) documentation.

9.0 Critical Components

- 9.1** Parts designated as Fracture Critical, Fatigue Critical, Durability Critical, or Maintenance Critical by the Purchase Order, B&B/Customer/OEM engineering or specifications, require the submittal of the Supplier's manufacturing plan 30 days prior to start of production.
- 9.2** Upon approval of the Supplier's manufacturing plan, the Supplier shall control all processes as stated in the plan.
- 9.3** No deviation from the approved plan is permitted without written approval from B&B and/or B&B's customer, through the B&B Purchasing agent.

10.0 Digital Product Definition (DPD)

10.1 When B&B, or B&B's Customer, provides electronic engineering definition of the product, the Supplier shall have a documented procedure for:

- Verifying the integrity of the file transfer
- A system for storing and maintaining the file
- A system for the security (limited access) of a file
- A system for change verification and notification
- Full traceability of all derivative data back to the original Customer provided definition
- When models are provided by B&B, along with other configuration control documents (engineering drawings, specifications, condition of supply...etc.), the Supplier is to ensure that all documents have been properly reviewed prior to production. This includes the evaluation of all imbedded notes in the engineering model. Any conflict between these documents and files shall be brought to the attention of B&B, through the B&B Purchasing agent for resolution.

10.2 See Section 24 of the SQRM for information regarding First Article Inspection for a reduced dimension drawing or model-based definition.

11.0 Calibration Requirements

11.1 Calibration Control:

- The supplier shall control the Calibration of all Measuring and Test Equipment (M&TE) against Certified Measurement Standards, traceable to the NIST.

11.2 Calibration Suppliers:

- Calibration Suppliers must comply with ANSI Z540, ISO 17025, or ISO 10012.
- Measurement standards used for calibration or verification shall be traceable to international (SI) or national measurement standards and be supported by certification.
- Where no such standards exist, the basis for calibration will be defined and documented

12.0 Part Mark

12.1 When part mark requirement is provided by the customer's direction, drawings, specifications or Purchase Order, the following shall also be applied below those part mark requirements:

- The manufacturing dates
- The Supplier's name or cage code for traceable to the Supplier
- The unique number used by the Supplier to provide traceability of their quality records (i.e. Serial Number, Lot Number, Control Number, or Work Order/Traveler Number) NOTE: Manufacturing Date is not considered as a unique number, for traceability
- B&B non-conformance document number (when applicable)

12.2 When a part mark requirement or customer direction is not provided by the drawings, specifications or Purchase Order, the part mark shall be applied in accordance with MIL-STD-130 or its equivalent, and shall also include the following items:

- The manufacturing dates
- The Supplier's name or cage code traceable to the supplier
- The unique number used by the Supplier to provide traceability of their quality records (i.e. Serial Number, Lot Number, Control Number, or Work Order/Traveler Number)

13.0 Foreign Object Damage Control

13.1 The Supplier will ensure that product delivered to B&B is controlled in a manner that will prevent FOD from being introduced into the final product.

14.0 Acceptance

- 14.1** If any goods that are found to be defective or otherwise not in conformance with the requirements of the Purchase Order, B&B may, in addition to its other rights and remedies, reject such goods and require their prompt correction or their replacements at the Supplier's expense, including shipping and packaging charges. Alternatively, B&B may repair or replace such non-conforming goods at the Supplier's expense.
- 14.2** Some shipment or delivery dates on B&B's Purchase Order may extend beyond the current engineering level protection time frame. Fabricating in advance of Supplier's proposed lead time or "agreed upon lead time of manufacture" (excludes hardware, forgings, or raw material which routinely exceed) before the stated due date is at the Supplier's risk.

15.0 Non-Conforming Material

- 15.1** When a nonconforming product is discovered at the Supplier's facility, and it requires an engineering review/disposition, the Supplier shall submit a Nonconforming Material report to the B&B Purchasing agent and Quality Assurance.
- 15.2** When nonconforming product is reported to B&B Supply Chain, by the customer and/or B&B Quality, and it is determined to be the responsibility of the Supplier, immediate containment action and evaluation of all such Product at the Supplier's facility will take place. The Supplier will notify B&B of any additional product impacted, by the discovery, and evaluate the condition for possible NOE category. A copy of the B&B CAR Corrective Action Report will be provided to the Supplier as notification of the discovered discrepancy. If requested, the Supplier shall provide a Root Cause and a Corrective Action statement, within the appropriate sections of the CAR, and return it to the B&B Purchasing agent.
- 15.3** The Supplier will receive a copy of the CAR with the disposition, from the B&B Purchasing agent or B&B Supplier Quality, upon the completion of the engineering review/disposition process. For deliverable product associated to an NCR the part marking will include the NCR number (e.g. NC#123456), per Section 12 of the SQRM.

16.0 Disposition Authority

- 16.1** Supplier disposition authority for non-conforming product is limited to Rework (if compliance of OME has been met), Return-to-Vendor, and Scrap.
- 16.2** A Non-conformance document shall be submitted to B&B, by the Supplier, for B&B/Customer furnished material; regardless of the supplier's MRB status. If material is procured solely by the Supplier, they retain the authority to scrap at their discretion.
- 16.3** Rework is defined as a process performed entirely within the confines of the drawing and referenced specifications that will result in characteristic(s) that conforms completely to the drawings, specifications, and contract requirements.
- 16.4** The Supplier shall notify the Purchasing agent in writing immediately if the disposition actions taken have an effect on the ability to deliver product as specified or agreed upon.

17.0 Supplier Corrective Action

17.1 If the Supplier is issued a Supplier Corrective Action Request (SCAR), the Supplier's response shall be submitted to B&B Supplier Quality Assurance (SQA), and the Purchasing agent, within the date specified in the SCAR notification. Requests for an extension may be submitted to SQA for consideration.

17.2 The supplier must provide the following:

- Status of SCAR at the time of request
- Circumstance to justify the extension
- Proposed completion date(s), for the remaining section(s) of the SCAR

17.3 Failure of a Supplier to respond may result in a change in approval status. At a minimum, a meeting will be held with the supplier to review the issues.

18.0 Notice of Escapement

18.1 The Supplier shall notify the Purchasing agent, within 24 hours of discovery, of any nonconforming product shipped (escapement) and/or any changes in product or process definition.

18.2 In the event of an escapement, the Supplier shall send a "Notification of Escapement" in writing to the Purchasing agent and shall contain the following as a minimum:

- Supplier Name
- A clear and concise description of the Non-Conformance
- A list of all affected part numbers
- Part number and traceability number which identifies the Nonconforming parts, if applicable
- All affected Purchasing agent's purchase order numbers
- Packing sheet numbers
- Quantities and dates shipped
- Information regarding quarantine of all related work-in- process and/or finished goods.
- Any other information that is required

19.0 Certificate of Conformance

19.1 All shipments require a C-of-C (Certificate of Conformance) and or a COA (Certificate of Analysis) The Supplier may use their Certificate of Conformance if it contains the following minimum requirements. Note: The Supplier may incorporate the CofC requirements into other shipping documentation, such as a Packing Sheet, at their discretion.

- Supplier's name and address
- Part number
- Purchase Order number and line item number
- Quantity
- The number used by the Supplier to provide traceability of their quality records (e.g., Serial Number, Lot Number, Control Number, Work Order/Traveler Number)
- A certification statement that meets the intent of the following:
“(Supplier) certifies that these parts were purchased, and/or manufactured, and/or processed, and/or assembled, and inspected and meets all applicable OEM customer and Purchasing agent requirements.”
Including specifications preformed to and met requirements.
- If applicable, log the B&B NCR number on the C of C and include a copy of the NCR with the delivery.
- An authorized Quality Assurance stamp (where applicable), signature and date.
- Full certification trail shall be included back to the original processor and/or manufacturer of material. CoC's must reference traceability number (e.g., raw material test report number, compliance report number, CoC) as assigned by the original manufacture.

20.0 First Article Inspection

20.1 A full First Article Inspection Report (FAIR) is required for all products produced for B&B on their initial shipment and shall be compliant with the latest revision of AS9102, the “B&B Airparts INC. AS9102 FAI Report. The FAI submittals are to be complete, with all material and process certifications, test reports, and supporting documentation attached. Unless otherwise mandated by B&B’s customer, at a minimum, the Form will be completed in its entirety, along with all other supporting documentation. The supporting documentation will include, but is not limited to:

- “Bubbled” B/P, Engineering Notes, etc.
- Material Certifications
- Process Certifications
- Special Manufacturing Instructions
- CMM Reports
- Supplier Code
- (Job Number)
- “B&B” Customer Location
- PO Number PO Line Item
- All supporting documentation shall be traceable to the FAI package. This shall be accomplished by including reference to the part number, and Manufacturing Process Reference number and/or the FAI Report number within each document.

21.0 Source Inspection

21.1 B&B retains the right to invoke source inspection of product, processes and goods at the Supplier or sub-tier Supplier’s facility. Source Inspection requirements may be a result of the Supplier’s quality performance or other mandates, at B&B’s SQA discretion. When invoked: The requirement for Source Inspection will be noted on the B&B Purchase Order, or a notification to the Supplier will be provided in writing by B&B SQA. The cost of such services may become the responsibility of the Supplier.

21.2 Upon completion of Source Inspection, the B&B Source Representative will provide a completed Source Inspection Checklist to the Supplier for inclusion with the shipping documents.

21.3 B&B’s verification of goods, by source inspection, shall not be deemed to constitute acceptance of any goods which do not conform to the specifications. Source Inspection does not waive any of the Purchasing agent’s rights or remedies arising by virtue of such defects or non-conformances being discovered at a later time.

21.4 Source Inspection may be waived or rescinded at the discretion of B&B SQA.

22.0 Packaging and Delivery Documentation

22.1 When a packaging specification or direction is not provided by the engineering drawings, specifications or Purchase Order, the packaging shall be in accordance with:

- Commercial: ASTM-D3951, Standard Practice for Commercial Packaging
- Military: MIL-STD-2073-1D, Standard Practice for Military Packaging

22.2 Supplier shall provide a Packing Sheet for each separate shipment that includes as a minimum:

- Supplier’s name and address
- Purchase Order number and line item number
- Part number and quantity

- Engineering drawings/models and revision levels, engineering drawing changes (ADCN, EO, etc.), as provided on the Purchase Order

22.3 Supplier shall provide a Certificate of Conformance (see Section 19.0 for Certificate of Conformance content requirements).

23.0 Records

23.1 Quality records, material, and process certifications that are created and/or retained by the Supplier must be complete, legible and identifiable to the corresponding product. These records shall be retained for a minimum period of 10 years or as specified by Customer retention requirements.

23.2 Quality records, material and process certifications will be maintained in English, unless written authorization from B&B and/or B&B's customer is provided.

23.3 Prior to disposal of quality records, B&B will be notified. B&B may request shipment of the records, at no cost to B&B.

23.4 Certificate or record of calibration performed will be maintained by the Calibration Focal. Records will include the following at a minimum:

- Equipment Type
- Identification number/Control number
- Manufacturer
- Calibration date
- Due date
- Interval
- Range of measurement
- Standards used/Instructions used
- Acceptance criteria/Tolerance
- Test measurement results
- Record retention 10 years unless otherwise directed.

24.0 Customer & Program Specific Requirements

24.1 In addition to the requirements noted in the B&B SQRM, there are Customer and Program related requirements that apply based on the type of product being provided by the Supplier and the Purchasing agent's end item Customer.

24.2 The Supplier is required to implement the Customer and Program specific requirements as applicable.

NOTE: Where conflict exists between these requirements and the SQRM/PO requirements, contact B&B SQA for guidance. In all cases where end user customer requirements dictate interface activity with the customer, these activities will be administered through B&B Airparts INC. (e.g. digital data submittal, non-conforming material submittal, corrective action submittal, etc.)

OEM Requirements

Boeing

X31764 Quality Purchasing Data Requirements (BCA)

D6-82479 Boeing Quality Management System Requirements for

Suppliers and the requirements listed below, as applicable:

- a. D6-51991 Quality Assurance Standard for Digital Product Definition at Boeing
- b. Special processes must be performed by Boeing D1-4426 approved processors. See D1-4426 Appendix D for Purchase

Order flow down requirements.

c. D950-11059-1 IDS Seller Special Tooling Requirements for any Boeing IDS Tool

d. DPAS Rating: Boeing BDS general clause H200

e. D33200 Boeing Supplier Tooling Document

Bombardier Aircraft

QD4.6-40 Quality Requirements for Suppliers.

Gulfstream

SQAR-9100 Supplier Quality Assurance Requirements

Honda Aircraft Company

HACI P 10-1 Supplier Requirements Manual.

Israeli Aircraft

CAG-9000 Quality Requirements.

Textron

CQRS Quality Requirements

Sikorsky Aircraft

SSQR-01 Aerospace Supplier Quality Requirements.

- Supplier must submit an Inspection Checklist (ICL) for approval, in accordance with Sikorsky SSQR-01 Main Text, prior to production. Validation points in XYZ column format are required for all parts using a digital inspection method: CMM, Inspection arm, scanner, laser tracker, etc.
- Suppliers are required to provide the specification and specification revision level on all certifications, and to ensure that all specification revision levels are compliant to the Sikorsky Standard Part Index and the Material Processing and Specifications (SS7777 and SS9999) index revision levels that are provided by B&B Airparts INC.