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## Supplier Quality Control Requirements

### 1.0 Purpose

This document contains the basic requirements for the maintenance of a Quality Control system by the supplier to ensure that materials and services provided meet the quality standards required by Bogue Machine Company. This quality control system shall be based upon consideration of complexity of design, interchangeability, reliability requirements, and manufacturing techniques. The system shall assure that adequate control of quality is maintained throughout the entire process of manufacturing, including receiving, packaging, and shipping. Objective evidence of inspections shall be available to BMC to assure the maintenance of this system.

### 2.0 General Requirements

This document is contractual with the suppliers when referenced in the purchase order specification or subcontract. Revision status of procured/deliverable items shall always be specified in the purchase order. Failure to conform to the applicable Quality Clause(s) requirements, and/or failure to provide the required documentation, may result in rejection of the material. If clarification of a Quality Clause is required, BMC will provide qualified personnel to advise the supplier via the cognizant purchasing agent.

### 3.0 Quality Control Responsibility

Quality control responsibilities shall be clearly designated within the organization. Personnel having this responsibility shall have sufficient authority to assure that quality is not compromised by schedules and cost.

### 4.0 Publication of Requirements

#### 4.1 Procedure

The supplier shall establish and maintain written procedures supporting its Quality Control System, which adequately provide compliance to the requirements of the BMC SQCR-001.

#### 4.2 Forms

Copies of all forms and other records used by the supplier to record the quality status of the supplier's products purchased by BMC shall be available upon request.

#### 4.3 Inspection

A description of the method by which the supplier indicated inspection action through the use of approved stamps, signatures, routings, labels, bar codes and/or electronic database shall be maintained.

#### 4.4 Control of Materials

The supplier shall establish complete procedure(s) to provide control of the quality of all materials, manufacturing, processing, testing and acceptance of parts in the sequence of the manufacture, including provisions for split orders.

#### 4.5 Nonconforming Material

The supplier shall establish a system that will provide instructions for the detection of discrepancies and containment.

#### 4.6 Corrective and Preventive Action

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The supplier shall establish a system that will provide instructions for the detection of discrepancies with a system of corrective and preventive actions to prevent recurrence.

## 5.0 Drawing and Specifications

The supplier shall maintain a control system for the control of drawings and specifications. Such a system shall guarantee that only the latest applicable drawings, specifications, technical requirements, and purchase order information are available to operating personnel.

### 5.1 Deviation from Drawing

When the suppliers are manufacturing to a BMC customer design, no deviation from the drawing and/or specification shall be made unless specifically authorized by the BMC customer/buyer and in writing on the purchase order. BMC shall assure that all drawings and specifications are available to the supplier's production and quality control personnel to fabricate and verify that the product meets BMC's purchase order requirements.

## 6.0 Procurement by the Supplier

The supplier shall guarantee that the material and services procured conform to BMC purchase order, drawing and specification requirements. The supplier shall maintain a system to assure the requirements are met by their sub-tier suppliers. This responsibility includes:

- a. Selection of quality suppliers.
- b. Quality requirements to purchase orders.
- c. Evaluation of procured items against purchase order requirements.
- d. Provide technical assistance to suppliers when necessary to achieve required quality levels.
- e. Include in the subcontract provisions necessary to allow BMC to determine and verify quality of work and material at any place, the plant of any supplier, and at all production phases for materials intended to be used for BMC products. If BMC deems necessary to review the suppliers quality of work and processes it will be coordinated with the supplier.
- f. The suppliers must have objective evidence on file, subject to review and acceptance by the BMC quality assurance representatives, to show that all materials and processing received by the supplier to be used in BMC products meet BMC purchase order requirements.
- g. The supplier organization having responsibility for quality control shall have the authority to disapprove the use of sources which do not have a quality control system to meet procurement requirements.

## 7.0 Records

Records of inspection and test performed under the responsibility of the supplier shall be maintained.

These records shall provide:

- a. Objective evidence of inspection to ensure adherence to the applicable drawing and specifications. Complete results of the inspection of the first part manufactured for qualification prior to start production shall be recorded.
- b. Evidence of testing shall be furnished to BMC as specified in the purchase order.
- c. Periodic inspection and control of inspection records, forms, precision tools, instruments and gauges calibration.
- d. Objective evidence of in-process control through rejection report including repetitive discrepancy control.
- e. Test records shall be traceable to acceptable tested material.
- f. Certification of material and processes (Brazing, heat-treating, welding, chem. film, plating, anodizing, etc.) as required by the purchase order and BMC customers.

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- g. The supplier and sub-tier contractors shall retain supporting documentation used to qualify material service for a minimum of 7 years. This includes but is not limited to, material certifications, process certifications, and samples of inspection results. Such documentation shall be available to BMC for review and will be provided to BMC upon request.

## 8.0 Quality Clauses

### **Clause 001: Quality Control System Requirements**

The supplier shall comply with all elements of ISO 9001:2000 Quality Systems – Model for quality assurance in design, production development, installation and servicing.

### **Clause 002: Right of Entry and Review Requirements**

During the performance of this purchase order, the supplier's quality control or inspection system and manufacturing processes are subject to review, verification by authorized BMC personnel and/or our customers.

### **Clause 003: Certificate of Conformance**

A certificate of conformance (C of C) shall be provided with each shipment. The C of C can be a separate document or it can be included as part of shipping /packing slips text. The following data and information shall be included on each C of C:

- a. Suppliers name and address
- b. **Statement that the parts conform to the purchase order requirements and applicable standards (Military, ASTM, NASM, etc... specifications shall include applicable revision level)**
- c. P.O. # and line item number
- d. Original manufacturer's name and part number (when supplier is not the manufacturer)
- e. Customer part number
- f. Revision Letter
- g. Lot number
- h. Serial number
- i. Quantity shipped (listed quantities by to be broken out by lot, and totaled)
- j. Date Code
- k. Date and authorized signature of quality representative or company official representative
- l. Manufacturers Country of Origin
- m. When required by drawing or technical data:
  - 1) Lot Numbers
  - 2) Serial Numbers
  - 3) Required and actual hardness values
  - 4) Date code
  - 5) Physical and Chemical Analysis certified by an independent laboratory
- n. Date of shipment

#### **NOTE: Distributor Policy**

BMC suppliers shall ensure flow down to, and compliance with, all applicable Purchase Order requirements to their sub-tiers suppliers.

***If the distributor is not the OEM, in addition to the distributor C of C, a C of C must be provided for all sub-tier suppliers to BMC through the supply chain showing traceability to the OEM per Clause 003.***

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**Clause 004: Certificate of Compliance for Special Processes**

Special process (e.g. welding, brazing, plating, heat treating, chem. Film, etc.) shall be performed by customer approved sources. The list of approved sources shall be provided via the customer's contract/purchase order quality requirements.

**Clause 005: First Article Inspection Report**

A First Article Inspection Report (FAIR) per AS9102 is required. A FAIR is required on one (1) unit minimum, randomly selected from the first production lot for each part number. The FAIR must accompany the unit with shipment. The FAIR and the associated part must be segregated in the event of shipment with associated production lot number. In addition a FAIR is required if:

- a. A period of 24 months has elapsed since last purchase of the item.
- b. A delta FAIR is required in the event of changes in design, configuration, and manufacturing location.

The shipping documents and container must clearly identify the first article unit. Approval of the FAIR is required prior to acceptance of any production lots.

**Clause 006: Certified Quantitative Test Results**

Certified copies of quantitative test results as required per the technical drawing requirements shall accompany each shipment. Examples of test requiring documentation are:

- a. Vibration test
- b. Pressure test
- c. Hardness test
- d. Torque settings
- e. Weight
- f. Tension tests, etc.

NOTE: The certification shall contain adequate information for material lot, identification, (e.g., BMC P.O. #, part number/revision, quantity supplied, unit lot identification number, serial numbers, date codes, type/grade/class/condition of the material, any other pertinent information required for material/lot identification).

**Clause 007: Calibration System Requirements**

The supplier shall maintain a documented calibration system in accordance with the requirements of this clause. The equipment used to inspect, test or qualify material supplied to BMC shall be calibrated in accordance with an internationally recognized system, and equipment accuracy shall be traceable to the National Institute of Standard and Technology (NIST). Supporting documentation shall be maintained to verify that, at the time of use on the product to be supplied to BMC, such equipment conformed to the requirements of this clause and all applicable specifications.

**Clause 008: Raw Material Certification**

All shipments of material shall be accompanied by a statement certifying that the material supplied conforms to the requirements of the BMC purchase order and applicable specifications. The certification shall further state that supporting data is on file either at the supplier's facility, or at their sub-tier contractors, available to BMC for review, and will be provided to BMC upon request.

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The certificate shall contain adequate information for material lot identification (e.g., BMC P.O. #, part number/revision, quantity supplied, unique lot identification number, serial numbers, type/grade/class/condition of the material, and any other pertinent information required for material/lot identification).

**Clause 009: Inspection Data Required**

The supplier shall perform physical inspection of the applicable material/parts in accordance with BMC requirements of the purchase order and applicable drawing. The supplier shall provide data as follows:

- a. Quantitative data when actual values are checked
- b. When applicable, Go/No-Go checks shall be identified (e.g., standard size bores, threads checked with Go/No-Go thread gages, etc.)

**Clause 010: Material Packaging**

Unless otherwise specified (by purchase order, drawing, etc.), the supplier shall take reasonable precautions to determine that all material is protected against corrosion, contamination, damage and/or other elements that adversely affect the quality and/or application of the material. The material shall be packaged adequately to protect it throughout the manufacturing process, handling, transit, storage, and end use.

**Clause 011: Shelf Life Material**

The following information should be included on each C of C for shelf life limited material:

Item #	Requirement	C of C Requirement
1	Manufacturers Name	X
2	Environmental storage conditions	X
3	Data of manufacturers and/or cure date (month/year or quarter/year)	X
4	Date of shipment	X
5	Lot number, or batch number, and compound number (as applicable)	X
6	Shelf life expiration date (MM/YY)	X

**9.0 Definitions**

- BMC - Bogue Machine Company  
C of C - Certificate of Compliance/Conformance  
PO - Purchase Order  
SQCR - Supplier Quality Control Requirements  
OEM - Original Equipment Manufacturer

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