

LongBar Grinding Supplier Quality Flow Down Requirements

1.0 PURPOSE, SCOPE & APPLICABILITY

The objective of this document is to convey to LongBar Grinding, Inc suppliers, and potential suppliers, the quality requirements and contractual conditions that must be met when providing goods and/or services to LongBar Grinding, Inc.

The purpose of this document is to provide clear guidelines about when to apply this standard, rules about how to specify the standard, and clarification of the terminology.

The intent of this specification is to establish criteria for all items supplied to LongBar Grinding, Inc and/or manufactured by LongBar Grinding, Inc. This document is subject to the LongBar Grinding Non-Disclosure Agreement or other Non-Disclosure Agreements and Terms and Conditions in place between LongBar Grinding and Supplier. The Supplier requirements as noted below shall apply to all Suppliers and sub-tier Suppliers to LongBar Grinding providing raw materials, manufactured components and products as well as performing material processing such as, but not limited to: heat treating; chemical processing; surface enhancements; non-destructive and destructive testing; coatings; welding; and nonconventional machining processes.

Acceptance of a Purchase Order from LongBar Grinding binds the Supplier to the Terms and Conditions listed in the Purchase Order and the requirements listed in this document, unless alternate Terms and Conditions have been agreed to in writing between LongBar Grinding and the Supplier. The Supplier is not authorized to outsource any portion of the Purchase Order requirements unless specifically authorized by LongBar Grinding; and they are required to flow down these requirements to any sub-tier Suppliers if they are authorized to use any.

2.0 SUPPLIER QUALITY PROGRAM REQUIREMENTS

Suppliers shall maintain a Quality System. The Supplier's quality system shall satisfy the requirements of the ISO9000 and/or the AS9100 standard, unless otherwise approved by LongBar Grinding. Any substantial changes to the Suppliers' quality system must be communicated to LongBar Grinding in writing.

3.0 TRACEABILITY

Traceability for Raw Material used to manufacture components and parts is required and shall be retained and provided to LongBar Grinding upon delivery of manufactured parts.

4.0 QUALIFIED SUPPLIER

Suppliers to LongBar Grinding must achieve Qualified Supplier status. Failure to achieve Qualified Supplier status may result in a cessation of the business relationship between LongBar Grinding and the Supplier. The Supplier shall meet the following criteria within an agreed upon time frame between the Supplier and LongBar Grinding:

- Meet LongBar Grinding' quality requirements and achieve a "Tier-1" rating for the previous six months. In the event that a Tier-1 rating has not been achieved, Supplier will be placed on probationary status and monitored to determine if qualification will remain active.
- Shall have evidence of ISO9000 or AS9100 compliance unless otherwise approved by LongBar Grinding.

LongBar Grinding reserves the right to revoke a Supplier's Qualified Supplier status at any time.

5.0 NONCONFORMING PRODUCT AND CORRECTIVE ACTION

Supplier product that does not meet engineering drawing and/or Purchase Order requirements shall be communicated to LongBar Grinding prior to product shipment. LongBar Grinding may deem any nonconforming product as Scrap.

Unless otherwise stated in the Purchase Order, in the cases in which LongBar Grinding provides a Supplier with raw material or components, the Supplier shall be responsible for the replacement cost of such raw material or components that exceed a 2% scrap factor above the required Purchase Order quantity. If the Supplier believes that LongBar Grinding has not supplied enough raw material or components to fulfill the requirements of the Purchase Order including scrap, the Supplier must notify LongBar Grinding in writing. If the Supplier fails to notify LongBar Grinding or the Supplier exceeds the 2% scrap factor, the Supplier may still be required to fulfill the Purchase Order requirements even if this requires the Supplier to commence a new production run.

Supplier product discovered after shipment by the Supplier to be nonconforming to any engineering drawing and/or Purchase Order requirement shall be immediately disclosed to LongBar Grinding upon discovery, including but not limited to quantity shipped, date shipped, and the extent of the nonconformance. Suppliers that receive notification of Nonconforming product shall take appropriate action to contain the nonconforming condition and prevent it from occurring again. Requests for a Return Material Authorization (RMA) number shall be provided within 48 hours. If the product is dispositioned as scrap by LongBar Grinding, but the material is shipped back to the Supplier on a miscellaneous shipper for analysis, the Supplier shall control the product until physically rendered unusable (i.e. the product is not allowed to be reworked and sent back to LongBar Grinding as production units).

The Supplier will be notified if a formal Supplier Corrective Action Request is required to be submitted to LongBar Grinding. The response shall be submitted within 15 working days of issue or a time frame agreed upon between LongBar Grinding and the Supplier. Errors with paperwork shall be resolved within 48 hours.

6.0 SUPPLIER CONTROL OF ENGINEERING DATASETS

Suppliers to LongBar Grinding who receive CAD/CAM/CAI/CAE datasets or drawings from LongBar Grinding either in hardcopy or electronic format shall not alter, edit or modify these datasets or drawings. Supplier must treat these datasets and drawings as LongBar Grinding confidential information and protect them as outlined in the non-disclosure agreement between LongBar Grinding and Supplier.

7.0 ON-SITE INSPECTION

LongBar Grinding reserves the right to perform an on-site inspection of the Supplier's facility. This includes LongBar Grinding, their customer and regulatory authorities to the applicable areas of facilities and to applicable documented information, at any level of the supply chain. LongBar Grinding will give reasonable notification to the Supplier prior to the on-site inspection. The onsite inspection may include surveillance of the Supplier's facilities, procedures, production methods, processes, and the Supplier's Quality System. The Supplier shall furnish, at no cost, the necessary data as required by applicable drawings, Purchase Order, specifications, and inspection instructions to facilitate the on-site inspection.

8.0 SPECIFICATION REVISIONS AND RECORD RETENTION

Unless otherwise specified on the Purchase Order, the latest specification revision in effect at the time the lot of raw material/parts was originally manufactured or processed shall apply. In the event a document has been superseded, the latest revision of the superseding document shall apply. All certifications, test reports, and inspection reports, as well as receiving inspection, in process inspection,

and final inspection records shall be retained indefinitely unless otherwise specified by LongBar Grinding. LongBar Grinding shall have access to these records during any onsite visit or upon request. Process records and supply chain records and instrumentation calibration records shall be retained a minimum of 10 years.

8.1 Requests for Change or Deviation

If Supplier requires a change to any released LongBar Grinding drawing, specification, etc., these changes must be approved in writing by LongBar Grinding. The Supplier shall make no changes to the designs, specifications, methods, materials, or processes of the supplied items or its Quality System unless agreed to, in writing, by LongBar Grinding.

Without an authorized change, Supplier is expected to meet all requirements defined or referenced within the PO.

9.0 SAMPLING REQUIREMENTS

If the Supplier chooses to use sampling as a means for product acceptance, the Supplier shall comply with ARP9013, Statistical Product Acceptance Requirements with minimum protection levels meeting ARP9013 Figure B1. When statistical process control is used as an option for either in-process or final inspection, the Supplier shall satisfy the requirements of Aerospace Recommended Practice ARP9013/3, "Statistical Product Acceptance Requirements Using Process Control Methods" available at <http://www.sae.org/servlets/index>. In all cases, inspection requirements identified by engineering drawing or specification take precedence over the inspection requirements defined herein.

10.0 COUNTERFEIT MATERIAL / PART AND / OR SUBSTITUTIONS

To prevent the purchase of counterfeit or suspect / unapproved products and to ensure product identification and traceability (and for other reasons), Supplier will institute controls that include the requirement of Material Certificates, Certificates of Conformity, and/or other supporting documentation as is appropriate. The Supplier shall notify LongBar Grinding as soon as it becomes aware of any Counterfeit materials or Suspected Counterfeit materials supplied to LongBar Grinding. Material and part substitutions are not allowed unless authorized by LongBar Grinding and documented on the Purchase Order.

11.0 ADDITIONAL QUALITY REQUIREMENTS

The following additional Quality Requirements shall be required as applicable unless otherwise noted. If the Supplier is unable to meet any of the applicable requirements, the Supplier must notify LongBar Grinding before starting any work or fulfilling any Purchase Order.

11.1 Variation Management of Key Characteristics

The Supplier shall meet the requirements of AS9103 to develop and monitor a process to meet variation management requirements for Key Characteristics. Records pertinent to such shall be available for review and delivery to LongBar Grinding upon request.

11.2 First Article Inspection

If noted in the Purchase Order, the Supplier shall submit a First Article Inspection (FAI) report that conforms to AS9102 requirements on the first production run of product. Other forms of inspection reports may be acceptable if approved by LongBar Grinding.

Also, per AS9102 section 5.3, the Supplier shall perform and submit a full FAI, or a partial FAI for affected characteristics, when any of the following events occurs:

- 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.
- A change in numerical control program or translation to another media that can potentially affect fit, form or function.
- A natural or man-made event, which may adversely affect the manufacturing process.
- A lapse in production for two years or as specified by LongBar Grinding.

The Supplier should, when practical, clearly identify (mark/tag – non-permanent) the product used to develop the FAI. All certifications and test reports required by the Purchase Order and/or drawing(s) shall be submitted with the FAI package which includes a copy of the assembly, sub-assembly, and detail FAI reports as applicable.

11.3 Shelf Life Identification

All material shall have at least ½ 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:

- Manufacturer Name
- Compound & Specification Number (if applicable)
- Batch Number or Heat Number assigned by manufacturer or mill
- Expiration Date
- Storage Temp Requirements (if applicable)

11.4 Special Processes – NADCAP

If indicated in the Purchase Order that a NADCAP approved Supplier is required, the Supplier must not perform any work or process any part if they are not NADCAP approved and listed in the eAuditNet on-line QML (www.eauditnet.com). Should a Supplier have a change to their NADCAP certification or accreditation, the Supplier MUST notify LongBar Grinding per the terms of the NADCAP requirements. If processing has been performed on parts where NADCAP certification is required and the processor is not NADCAP accredited or has lost their NADCAP accreditation, the Supplier will be responsible for the replacement costs of the parts including any expediting fees necessary for LongBar Grinding to meet our requirements to our customer.

11.5 Statement of Conformance

Each shipment must be accompanied by one legible copy of a statement of conformance unless otherwise noted in the Purchase Order. This statement shall specify that all contractual requirements have been adhered to including all specifications and other applicable documents as cited in the purchase agreement and that evidence is on file for review by a LongBar Grinding quality representative. The statement of conformance must contain as a minimum: the part number, Purchase Order number, quantity, revision as specified on the Purchase Order, name and address of the company certifying the part.

11.6 Special Process Certification

A copy of the certified inspection report shall be submitted with the shipment that assures conformance to all applicable processing requirements. These certificates must contain reference to the specification and revision to which the processing conformed, the condition to which the material was processed (when applicable), the name and address of the agency that performed the processing. Traceability from the certification to the material submitted is required and shall be retained. All lot test and inspection results as required by applicable process specification shall be reported.

11.7 Raw Material Certification

A copy of the raw material certification shall be submitted with the shipment that assures conformance to all applicable raw material specification requirements, including Conflict Mineral information, per the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, regarding Gold, Tin, Tungsten and Tantalum. LongBar Grinding must be informed, and the smelter information must be made available to verify compliance with the requirements of the Act. These certificates must contain reference to the specification and revision to which the material conforms. All chemical, physical, and mechanical properties test results required by the specification shall be retained by the Supplier. Traceability from the certification to the material submitted is required and shall be retained. Unless otherwise specified, material temper conditions must match the Purchase Order.

11.8 DFARS Required Material

For Purchase Orders specified as DFAR or DFARS (Defense Regulations Acquisition Regulations System), the following clauses are incorporated in their entirety:

- DFARS 252.225-7008, and
- DFARS 252.225-7009, and
- DFARS 252.225-7010, and
- DFARS 252.225-7012

All applicable clauses above are incorporated into the Purchase Order and must also be flowed down to all sub-suppliers that provide any articles delivered under this purchase order that include Specialty Metals. All such clauses provide the same definition of Specialty Metals and prohibit LongBar Grinding, Inc. and all of its suppliers at every tier from incorporating Specialty Metals into US Military parts, components and/or end item deliverables unless the Specialty Metals have been smelted (the deviation clauses add “or produced”) in the United States, its outlying areas, or a qualifying country listed in DFARS 252.225-7012. Exemptions to requirements of the above clauses may exist, as outlined in the clauses themselves, or by operation of applicable Department of Defense Domestic Non-Availability Determination (DNADS) posted on its public website for that purpose.

If material is found not to be compliant with DFARS, the material will be returned to the Supplier at the Supplier’s expense and LongBar Grinding will be reimbursed for the entire cost of the material even if the material is in a machined state. If subsequent to delivery, LongBar Grinding or the Supplier determines that the supplied material was not DFARS compliant, the Supplier shall be responsible for any and all costs associated with any remedy including any penalties imposed upon LongBar Grinding from either the United States Government (or applicable contracting authority) or their contracted Supplier.

11.9 Calibration Traceability

For calibration Purchase Orders, all gauges and instruments must be calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technology, the General Conference of Weights and Measures, or fundamental or natural physical constants. The supplier shall establish and maintain a documented Calibration / Measurement System in compliance with ANSI – Z540.1 or ISO 10012-1 for the control of measuring and test equipment. All provided calibration certifications must specifically state compliance with ANSI – Z540.1 or ISO 10012-1.

11.10 Supplier Awareness

It is key to LongBar Grinding that persons associated with the Supplier, are aware of: their contribution to product or service conformity; their contribution to product safety; the importance of ethical behavior.

Supplier must be committed to the highest standards of ethics and business conduct. Supplier must comply with the law, honor commitments, act in good faith, and be accountable. Supplier must strive to maintain full compliance with all laws and regulations applicable to the operation of the business and customer relationships. Supplier must not offer, promise, authorize, or provide, directly or indirectly, anything of value (including business gifts or courtesies) with the intent or effect of inducing anyone to engage in unfair business practices. Supplier will avoid involvement in activities that may be perceived as a conflict-of-interest. Supplier will respect the legitimate proprietary rights and intellectual property rights of customers and Suppliers and take proper care to protect sensitive information, including confidential, proprietary and personal information.

Supplier will support product safety by ensuring robust management of special requirements, critical items and key characteristics. If there are concerns with respect to product safety, Supplier will communicate them to LongBar Grinding. If there is a concern at the Supplier's premises with respect to safety during the manufacture of the product, Supplier will notify its own employees of the concern and whenever possible, mitigate the concern.

Supplier will ensure that employees and people working on its behalf are aware of:

- Their contribution to product or service conformity
- Their contribution to product safety
- The importance of ethical behavior

14.0 REACH and RoHS

If applicable to the product/service provided to LongBar Grinding, Supplier shall be in compliance with REACH ((EC) 1907/2006), RoHS 2 ((EU)2015/863).

15.0 COUNTERFEIT MATERIAL/PRODUCT

Supplier shall destroy any counterfeit materials or products discovered to eliminate the possibility of it returning into the supply chain. LongBar Grinding will be notified of any possible counterfeit parts/materials that may have been shipped with authorized or genuine product.

16.0 WORKMANSHIP

Material including all raw materials will be delivered free from defects which include: excessively bent or twisted bars/components, damage such as large dents or pockets of missing material, surface contamination such as oxidization or rust, any external sharp edges which must be removed prior to delivery, coded to industry standards to indicate material type.

Parts, product or purchased items are to be free of F.O.D. (Foreign Object Debris. This includes; loose packaging materials, food, dirt, excessive processing compounds, materials, or residue.

17.0 INSPECTION

Supplier shall institute appropriate inspection procedures with appropriate inspection instrumentation when required. Inspection Classes I & II are the minimum standards as required by LongBar Grinding. For reference:

- (Class I) – Inspect part with the naked eye.
- (Class II) – Inspect part using 8x magnification.

Note: if, for either of the Classes I or II above, a defect is visible but not identifiable, then an increase in magnification to the next higher magnification is required.

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