



SUPPLIER QUALITY MANUAL



MultiSource Manufacturing LLC operates manufacturing plants in five Minnesota cities – Ramsey, Burnsville, Minnetonka, Fridley, and Onamia, as well as in Boulder, Colorado. We routinely provide machining (close-tolerance/high-quality precision, diverse, and made-to-order), full-service plastic fabrication of specialty machines, and electromechanical assembly services.

Our suppliers are a key part of meeting our customer's quality expectations. Sharing this responsibility with us, they must have an opportunity to make a fair profit.

The information and requirements in this Supplier Quality Manual reflect MultiSource Manufacturing LLC's expectations for supplier performance.

1. PURPOSE, SCOPE & APPLICABILITY

This document applies to all manufacturers of materials and processes producing design characteristics of the product. The supplier shall notify and obtain prior written approval from the buyer prior to outsourcing any process (with the exception of raw material, commercial off the shelf items, and processes controlled by NADCAP). An "outsourced process" is a process that the supplier must have for its quality management system if the supplier chooses to have operations performed by an external party. If any processes are outsourced, the requirements herein shall be flowed down to the applicable subcontractors, including any specific customer requirements flowed down via the purchase order.

2. SUPPLIER QUALITY PROGRAM REQUIREMENTS AND CONTINUOUS IMPROVEMENT

The supplier must have a quality system in place and be able to meet all MultiSource requirements defined on purchase orders. The supplier shall ensure employees are aware of their contribution to product conformity, product safety and the importance of ethical behavior within the supplier's facility.

3. TRACEABILITY

The supplier shall control the unique identification of the product and maintain records for parts where an exclusive manufacturer(s) is specified or where the part is completely defined by an engineering drawing. Traceability for Raw Material used to manufacture parts is also required and records shall be retained. Traceability requirements include:

- The ability to trace all products manufactured from the same batch of raw material, or from the same manufacturing batch, to the destination (e.g., delivery, scrap),
- For an assembly, the ability to trace its components to the assembly and then to the next higher assembly, and
- For a product, a sequential record of its production (manufacture, assembly, inspection/verification) to be retrievable.

Suppliers must provide traceability records at the request of MultiSource within 48 hours of notification. Traceability shall be established via one of these methods:

Method 1, Cradle to Grave: A certification, purchase order, shipper or equivalent from each institution that took ownership of the parts, starting with manufacturer (or mill in the case of raw material traceability) and ending with supplier. Each certification, purchase order, shipper or equivalent will have a traceable feature (date code, sold to name & address, heat lot #, etc.) that links the subsequent or previous cert to itself.

Method 2, Abridged: A certification or shipper from the original manufacturer that includes a traceable feature (date code, heat lot #, etc.) plus a certification from the supplier that denotes the same lot number being provided.

4. NONCONFORMING PRODUCT AND CORRECTIVE ACTION

Supplier product that does not meet engineering drawing and/or purchase order requirements shall be communicated to MultiSource prior to product shipment. 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 MultiSource upon discovery, including but not limited to PO#, quantity shipped, packing slip #, date shipped, and the extent of the nonconformance. Suppliers that receive notification of Nonconforming product from MultiSource shall take appropriate action to contain the nonconforming condition and prevent it from occurring again. The supplier will be notified if formal corrective action is required to be submitted to MultiSource. The complete root cause corrective action response shall be submitted within 15 days of issue or sooner depending on customer requirements. When errors like these occur resulting in nonconforming product, MultiSource may initiate a Credit Request against the originating P.O. for the financial loss of time and material. These formal requests will allow MultiSource to report and track outstanding credit claims, monitor supplier responsiveness to these requests, and ultimately determine the total cost of quality for conducting business with a given supplier by tracking credit received, full or in part, against outstanding claims for nonconforming product.

5. SPECIFICATION REVISIONS AND RECORD RETENTION

Unless otherwise specified on the purchase order or on the drawing, 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 Industry or Military specifications are to be procured by the supplier. All certifications, test reports, and inspection reports called out on the P.O. as shall be provided to MultiSource upon shipment of product. Supplier must retain all manufacturing records along with calibration records for a minimum of 7 years after end of production.

6. 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. Inspection requirements identified by engineering drawing, purchase order or specification take precedence over the inspection requirements defined herein.

7. MATERIAL SUBSTITUTIONS

Material and part substitutions are not allowed unless specifically authorized by MultiSource.

Counterfeit product has become a growing concern in customers' supply chains. MultiSource is committed to obtaining only the highest quality products for our customers. Suppliers are required to do their due diligence when procuring items.

The supplier shall require that all external providers apply appropriate controls to their direct and subtier external providers, to ensure that requirements are met.

8. NOTIFICATION OF CHANGES TO OFF THE SHELF DATA SHEETS

If the supplier is notified of changes to material currently on use with MultiSource or for material previously supplied to MultiSource, the notification must be forwarded to the Buyer. In addition to changes, if the supplier is notified of a part obsolescence issue, notification must also be sent to the MultiSource Buyer along with data and/or possible replacements.

9. NOTIFICATION OF CHANGES IN MANUFACTURING FACILITY LOCATION

The supplier shall notify buyer three months prior to moving work to a different manufacturing facility location. A risk mitigation plan shall also be submitted to the buyer.

10. PROCESS CHANGES

Any process changes or deviations considered by the supplier must be submitted to MultiSource in writing for review and approval.

11. RIGHT OF ACCESS

The supplier is required to give MultiSource, their customer, and regulatory authorities access to the applicable areas of all facilities, at any level of the supply chain, involved in the order and to all applicable records. This may include any Process or Quality Management System audits or product verification activities.

12. SUPPLIER VERIFICATION ACTIVITIES

Verification activities performed at any level of the supply chain should not be used by the supplier as evidence of effective control of quality and does not absolve the supplier of its responsibility to provide acceptable product and comply with all requirements. The supplier shall be responsible for the conformity of all products purchased from subcontractors, including product from sources defined by MultiSource.

13. VARIATION MANAGEMENT OF KEY CHARACTERISTICS

The supplier shall meet the requirements 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 MultiSource with every shipment or upon request.

14. FIRST ARTICLE INSPECTION

First article inspection of product is required. If MultiSource provides a Verification Record to complete first article inspection the supplier is required to provide record with product.

15. SPECIAL PROCESSING

All raw material or special processing requirements whether to be fulfilled by the supplier or by a subcontractor to the supplier must be approved. In addition, all special processes for Heat Treat, Non-Destructive Testing, Chemical Processing (INCLUDING PAINT, PRIMER, AND PASSIVATION), Composites, Welding, Coatings, Non-Conventional Machining & Surface Enhancement, and Materials Testing Labs must be fulfilled by Nadcap certified processors when defined on MultiSource purchase orders.

16. CERTIFICATE OF CONFORMANCE

Each shipment must be accompanied by one legible copy of a statement of conformance. 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 and provided with each shipment of MultiSource product. 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.

17. WELDING

A copy of the certified inspection report shall be submitted with the shipment that assures conformance to the welding specification, as required, all applicable specifications contained therein. This certificate must contain reference to the revision to which the welding conforms, the condition in which the item was processed (when applicable), the name of the agency that performed the testing. Traceability from the certification to the material submitted is required and shall be retained.

18. FOREIGN OBJECT DETECTION

Suppliers and their subcontractors who furnish product, material or services are responsible for maintaining a system that identifies and prevents foreign objects from contaminating product. *(A substance, debris, or article alien to the component, assembly, system or vehicle that could cause damage.)*

19. SHIPPING MATERIALS

MultiSource supplied shipping material shall be kept and used as returned packaging. If parts cannot be returned in same packing material it needs to be an equivalent packaging material or better. Supplier shall package product to prevent damage during transit. Parts must be packaged to protect the finish.

SUPPLIER: _____
AUTHORIZED NAME: _____
AUTHORIZED SIGNATURE _____
TITLE: _____
DATE: _____