

**LoDolce Machine Co Inc.  
Quality Clauses  
(Q Clauses)**

# LoDolce Machine Co Inc Procurement Quality Requirements (Q Clauses)

## Q-CLAUSE REVISION RECORD

Date	Revision Description
01/17/17	RELEASE

## 1.0 PURPOSE

This document establishes the Quality Assurance requirements (Q Clauses) which are applicable as specified on the Purchase Order.

## 2.0 QUALITY ASSURANCE REQUIREMENTS

The following Q Clauses are a requirement of the procurement when specified by number and letter designation paragraph (Q-1-Q-XX), as applicable on the Purchase Order. The general Quality Assurance requirements, Q-1, apply to all procurements except Buyer Interdivisional procurements.

### Additional Purchase Document Clauses/Notes

Additional Program or Specification clauses or notes form a part of an order as defined in the Purchase Order.

## Q CLAUSES

### Q-1 GENERAL QUALITY ASSURANCE REQUIREMENTS

Includes paragraphs A through K below

#### A. PROHIBITED PRACTICES

##### Unauthorized Repairs/Rework

No repair or rework shall be allowed outside of the specific specification limits, (i.e., welding, reheat-treat, insert removal, re-installation, etc.) unless prior approval is obtained by the Seller from the Buyer utilizing a Deviation. . All deviations shall be submitted for approval by the Buyer. Submission of deviation in no way affects any contractual requirements until an approved disposition is issued by the Buyer. The approved deviation shall be included with the part/documentation package when delivered to Buyer.

##### Change in Approved Drawings, Processes, Materials, Suppliers or Procedures

Seller shall not change any drawing, process, material, supplier or procedure without prior written Buyer approval, if such drawing, process, material, supplier or procedure were originally approved by Buyer. Approval requests shall be submitted to the Buyer on a deviation. This requirement is not relevant for Commercial and/or Military Part Numbers.

Seller shall not change any process, material, supplier or procedure from that used to qualify items or which was used by Seller to become a qualified source without written approval by Buyer. Approval requests shall be submitted to the Buyer on a deviation.

##### Re-Submittal of Rejected Items

Items rejected by Buyer, and subsequently resubmitted to Buyer, shall be clearly identified on Seller's shipping document as resubmitted items. New lot control identification numbers are to be provided, if required by the Buyer.

##### Unauthorized Submittal of Production

When the Purchase Order requires Buyer acceptance of a "first article," Seller shall not submit items from a production run for Buyer inspection prior to Buyer's acceptance of such "first article."

##### Part Substitution

Part substitution shall not be allowed. The exact part number as identified on the Purchase Order (MIL-Spec or Supplier Part Number), or the exact part number identified in the purchase item drawing shall be provided. Distributor evaluated parts which meet the purchase drawing shall be communicated with the Buyer prior to delivery for technical evaluation and proper documentation.

##### Notification of Facility Change

Seller shall not use or relocate any production, manufacturing, and/or processing facilities during performance of the work specified on the Purchase Order from those production, manufacturing, or process facilities previously qualified by Buyer without promptly notifying Buyer and affording Buyer an opportunity to examine such facilities for compliance with Quality Assurance requirements. Seller shall notify Buyer of changes.

#### B. SELLER RESPONSIBILITY FOR CONFORMANCE

The Seller named on the purchase order retains full responsibility for ensuring products, suppliers, or services furnished here under; comply with all applicable specification and standard requirements for design, construction, and workmanship. All Industry Standards/Specifications and flow downs shall be to the latest revision unless otherwise stated on the Buyer Purchase Order.

Acceptance of the Purchase Order and receipt of product at Buyers location certifies that items processed on this order meet all the requirements imposed.

This includes any/all suppliers or services purchased from a secondary (sub-tier) supplier that are incorporated into or are used to produce, inspect, or test products or services under this Purchase Order.

The Seller shall:

- Provide (flow-down) of applicable specification and standards requirements to sub-tier suppliers.
- Ensure, by performing physical and/or functional inspections that sub-tier suppliers have complied with the requirements of this Purchase Order.
- Upon request, Seller shall provide objective evidence to Buyer Quality personnel of compliance to this provision.

Neither surveillance, inspection, and/or tests made by Buyer, or their representatives, or representatives of the Buyer's Customer at either Seller's or Buyer's facility, nor Seller's compliance with all applicable Quality Assurance requirements, shall relieve Seller of the responsibility to furnish items which conform to the requirements of the Purchase Order.

Seller shall control sub-tier procurements to the extent required to assure quality requirements specified in Buyer Purchase Orders are satisfied.

#### C. BUYER SURVEYS, SURVEILLANCE, AUDITS, AND INSPECTION

Buyer, Buyer's Customer, and Authorities have the right to conduct surveys, audits, and surveillance of Seller's facilities, or those of Seller's subcontractors, or suppliers with prior coordination with Seller to determine the capability to comply and to verify continuing compliance with the requirements of the Purchase Order.

Buyer, Buyer's Customer, and Authorities have the right to perform inspection at Seller's facilities, or those of Seller's subcontractors, or suppliers with prior coordination with Seller during the period of manufacture and inspection prior to shipment.

Final inspection is the Seller's responsibility to complete prior to shipment for validation of contractual requirements. Final acceptance Inspection shall be completed at the Buyers facility, unless otherwise specified on the Purchase Order.

#### D. CORRECTIVE ACTION REQUESTS

When a quality problem exists with Seller's items, Buyer may forward a Corrective Action Request to Seller. Corrective Action Requests require timely responses and must use the specified Buyer's electronic SCAR which includes:

- The short term containment of suspect parts (if applicable);
- Analysis of the cause of the problem;
- Statement of the action taken to prevent recurrence;
- The effectivity of the action.

#### E. MEASURING AND TEST EQUIPMENT

Seller shall be responsible for validating the accuracy and stability of tools, gages, and test equipment used to demonstrate that items conform to the Purchase Order. Traceability of calibration equipment and gages shall be to the National Institute of Standards and Technology (NIST) which is in conformance with ANSI/NCSSL-Z-540-1 or ISO 10012:2003 unless stated otherwise in the Purchase Order.

Documented schedules shall be maintained to provide for periodic calibration to adequate standards. Objective evidence of calibrations shall be recorded and made available for Buyer review.

If the SOW, specification, or other contractual flow down documents/requirements specify a higher or alternate calibration requirement, it takes precedence over the specification above.

If seller is performing a process or a test where the use of calibrated equipment is not utilized, this clause does not apply.

#### F. NONCONFORMING MATERIAL

Decisions to accept nonconformances (variances from Buyer drawings and specifications) detected at Seller's facilities must be made by Buyer, unless otherwise specified by the Purchase Order. Shipment

of nonconforming items must be accompanied by a Buyer-Approved Supplier Discrepancy Report. The Supplier Discrepancy Report must be dispositioned by the Quality Engineer prior to shipment.

Seller shall provide for control, segregation, and identification of non-conforming material detected at Seller's facilities.

Seller does not have MRB authority without express written authorization of the Buyer. Seller must request MRB authority by submitting MRB board members' resumes and positions currently held.

#### G. INSPECTION RECORDS

Seller shall maintain records of all inspections and tests performed on items delivered to Buyer. These records shall identify nonconformances and shall be made available for Buyer, Buyer's customer and regulatory review. Period of retention is 3 years from close of order, unless otherwise specified on the Purchase Order.

#### H. PACKAGING

Boxes or containers, as applicable, should be selected to the extent necessary to provide protection from physical and environmental damage during shipping and handling. Cushioning materials shall be applied, as required, to protect and to restrict movement of the item(s). Electrical components shall be kept from direct contact with cardboard and other paper products. Perishable items or those with limited shelf life must be handled/preserved in accordance with recommendations of the manufacturer.

#### I. TEST SAMPLES/REJECT/REWORK PART PACKAGING AND IDENTIFICATION

All test samples and/or reject parts to be shipped to Buyer shall be packaged in appropriate packaging medium to protect parts from damage. These items shall be packaged separately from compliant product and shall be identified/labeled with part number, date/lot code, and identified as test samples/rejected and/or reworked parts (if applicable).

#### J. CONFIGURATION MANAGEMENT REQUIREMENTS

The Seller is required to establish engineering and manufacturing controls to ensure that the configuration of the end item(s) comply with the specification requirements. The configuration end items (hardware, software) delivered under this contract shall conform to those configuration management and engineering documentation requirements implicit in the specification. The Seller shall impose the same configuration requirements on their vendors and suppliers in concert with the above requirements. The following configuration management functions are basic to good practices:

- Product Identification
- Configuration change control
- Material traceability

#### K. SHELF LIFE

Each shipment of material with a finite shelf life shall be accompanied by documentation to determine expiration date based on the OEM method for determining useful life (date of manufacture, date of shipment or expiration date as applicable). Product that has a shelf life requirement shall be marked with this information, and shall have 75 percent remaining total available shelf life from the initial date of certification when received by the Buyer. The latest SDS/MSDS for all chemical shall be supplier to Buyer upon request.

#### Q-2 QUALITY PROGRAM REQUIREMENTS (AS9100)

Seller shall maintain a Quality System which meets the requirements of SAE AS9100, Quality Management Systems – Aerospace.

#### Q-3 INSPECTION AND TEST QUALITY SYSTEM (AS9003)—NHB 5300.4(1C)

Seller shall provide and maintain an inspection system which is in conformance with SAE AS9003, Inspection and Test Quality System.

#### Q-4 CONTROL OF NONCONFORMING PRODUCT, AND CORRECTIVE AND PREVENTIVE ACTION (ISO 9001)

Seller shall provide and maintain a program for control of nonconforming product, and for corrective and preventive action, which is in conformance with ISO 9001.

**Q-5 QUALITY PROGRAM REQUIREMENTS (ISO 9001)**

Seller shall maintain a Quality System which meets the requirements of ISO 9001, Quality Management Systems – Requirements.

- Maximizes availability of authentic, originally designed and/or qualified parts throughout the product's life cycle, including management of parts obsolescence.
- Assures that approved/ongoing sources of supply are maintaining effective processes for mitigating the risk of supplying counterfeit electronic parts.
- A documented process to address the detection, verification, and control of in-process (post acceptance) and in-service suspect and confirmed counterfeit parts.
- A documented process to:
  - Control excess and nonconforming parts to prevent them from entering the supply chain under fraudulent circumstances

**Q-6 ADDITIVE MANUFACTURING PART CERTIFICATION**

The Seller shall record each lot/date code of material (may use the date as the unique identifier) used in the production of the Buyer's product and shall provide a copy of the manufacturer's certification(s) of such for each order shipped to the Buyer. Parts shall be segregated and identified by the material lot/date code manufactured and machine used. The Seller shall provide documented evidence of lot/date codes used to their process specification with each shipment to ensure compliance and traceability.

**Q-7 BUYER SOURCE INSPECTION**

Inspection by Buyer must be performed at Seller's facility prior to shipment. Seller shall provide reasonable inspection facilities for Buyer to verify conformance to requirements. Buyer Source Inspection may include validation of Seller's automatic test programs, procedures to Buyer specification requirements, witnessing Seller's performance of acceptance testing, and review of acceptance test data to Buyer's specification/drawing.

Seller shall notify the Buyer not less than 3 working days prior to the time items are ready for Buyer Source Inspection.

Buyer Source Inspection points may include, but are not limited to:

- First Article
- In-process (i.e., Pre-Cap, Pre-Pot, Inner-Layer)
- Major/Critical Tests
- Final Acceptance

After Buyer Source Inspection, any rework or test of the item, including any nonscheduled entry, such as removal of a panel, cover, or enclosure will void the source inspection, unless otherwise specified on the Source Inspection Report. In case of any nonscheduled entry, rework, or test, Seller shall request Buyer to repeat source inspection.

**Q-8 GOVERNMENT SOURCE INSPECTION**

Government inspection is required prior to shipment from Seller. Upon receipt of this order, promptly notify the Government Representative who normally services your plant so that appropriate planning for Government inspection can be accomplished.

On receipt of this order, promptly furnish a copy to the Government Representative who normally services your plant, or, if none, to the Army, Navy, Air Force or Defense Supply Agency inspection office. In the event the representative or office cannot be located, our purchasing agent should be notified immediately.

During performance on this order, your quality control or inspection system and manufacturing processes are subject to review, verification and analysis by authorized Government representatives. Government inspection or release of product prior to shipment is not required unless you are otherwise notified.

All work on this procurement is subject to inspection and test by the Government at any time and place. The Government representative who has been delegated Quality Assurance functions on this procurement shall be notified immediately upon receipt of this Purchase Order. If the Government representative is in residence, he shall be notified 2 working days in advance of the time the items are ready for inspection or test; 7 working days otherwise. In the event that the Government representative cannot be contacted, Buyer shall be notified immediately. The Seller, without additional charge, shall provide all reasonable facilities and assistance for the safety and convenience of the Government Representatives in the performance of their duties.

**Q-9 MATERIAL AND PROCESS CONFORMANCE—C OF C**

Certification of Compliance and/or Certificate of Conformance (C of C) defined by Military Specifications (Military Standards, Federal Specifications, AN, NAS Documents, etc.), or Standard Military Drawings (SMD's) may be kept on file by the supplier in lieu of being supplied with each shipment. The C of C shall be traceable to the Buyer part number and Purchase Document number and shall identify the date of shipment. The file copy held by the Seller shall be subject to audit by Buyer personnel and discrepancies found will be an input to the Supplier Rating System.

A statement of compliance to the specification is to be included on the Seller's shipping document. An example of an acceptable statement of certification of conformance is as follows:

This is to certify that items processed on this order meet all the requirements imposed.

**Q-10 CERTIFICATION OF ANALYSIS—C OF A**

A certificate of analysis must accompany material.

The C of A shall reference the following:

- Manufacturer's name
- Specification number
- Material Grade
- Material condition
- Size
- Heat Lot
- Date Code
- Chemical Analysis
- Physical properties as applicable to material procured.

**Q-11 CERTIFICATION OF COMPLIANCE—C of C**

A certificate of compliance shall be supplied with each shipment of material supplied against this Purchase Order. The certificate shall be signed and dated by the responsible Seller personnel and shall certify that the material meets all applicable Buyer specification requirements or military/industrial specification requirements.

The C of C is to reference the following:

- Purchase Document number
- Manufacturer and/or Buyer Part Number and Dash Numbers
- Any number the Seller's facility uses for material traceability (ie: Lot/date code number, job/shop order #, etc.)
- Serial number (if applicable)

**Q-12 RAW MATERIAL DOCUMENTATION REQUIREMENTS**

A. Shipment of metallic raw material must be accompanied by:

B. Manufacturer or mill inspection/test report for the raw material containing:

- Name and location of the raw material manufacturer or mill.
- Material identification by specification number and material condition.
- Manufacturer or mill lot identification number of the raw material.
- Actual chemical and physical test results as specified in the applicable specification.
- Actual size and form of billets if required by the applicable standard.

C. Certification from Seller containing:

- Name and location of the raw material manufacturer or mill.
- Material identification by specification number and material condition.

- A statement that the raw material meets applicable specification requirements.
- D. Shipment of finished or semi-finished items manufactured from raw materials must be accompanied by a certification from Seller containing:
- Name and location of the manufacturer(s) of the raw material(s) and the lot number(s) of the raw materials(s) used in the manufacture of the finished, or semi-finished, item(s).
  - A statement, that the raw material(s) used in the manufacture of the finished or semi-finished item(s) meet applicable specification requirements.
- E. Shipment of nonmetallic raw material must be accompanied by:
- F. Chemical inspection/test report for the raw material containing:
- Name and location of the raw material manufacturer.
  - Material identification by specification number.
  - Manufacturer lot or batch number of the raw material.
  - Actual chemical test results as specified in the application specification.
- G. Certification from Seller containing:
- Name and location of the raw material manufacturer.
  - Material identification by specification manufacturer.
  - A statement that the raw material meets applicable specification requirements.
  - Certification of shelf life.

**Q-12 TEMPERATURE SENSITIVE MATERIAL**

Each shipment of temperature sensitive material shall include a packing slip with a statement that the material is temperature sensitive and/or perishable. The packaging shall also have a label affixed indicating that material is temperature sensitive. This label shall be affixed to any/all external packaging. The label shall also identify the temperature storage requirements. All temperature sensitive/perishable material to be shipped shall be packaged and stored in accordance with the manufacturer's specification. Material will not be accepted without this evidence.

**Q-13 CONTROL OF PROCESSES**

Special processes (example: soldering, brazing, welding, magnetic particle inspection, etching, dye penetrant inspection, plating, casting, heat treating, radiographic inspection, etc.) employed during the manufacturing of deliverable hardware shall be NADCAP certified for the process performed. Personnel shall be military standard or industry standard certified, as required. Unless otherwise specified by the Purchase Order, test results and test coupons required by the process specification, shall be retained on file by the process supplier for a minimum period of 3 years. A NADCAP certification to the specification requirements shall be prepared from each supplier, including sub-tier suppliers, who performed the special process, shall accompany each shipment.

If Seller is unable to meet the NADCAP certified requirements, a deviation request shall be submitted to the Buyer prior to any shipment of product. Submission of a deviation in no way affects any contractual requirements until an approved disposition is issued by the Buyer.

Deviation approval of any process the supplier performs does not in any way relieve Seller of their responsibility for delivering items conforming to the requirements of the Purchase Order.

**Q-14 CONTROL OF SUB-TIER SUPPLIERS**

The Seller shall maintain a supplier control system ensuring all sub-tier suppliers are capable of meeting the requirements of the Purchase Order. The Buyer retains the right to approve any sub-tier suppliers considered for use on deliverable hardware. The Seller shall notify the Buyer of any intentions to subcontract work required to complete the Purchase Order requirements.

**Q-15 FLOWDOWN OF NAS-412 FOD REQUIREMENTS**

The Seller shall maintain a Foreign Object Damage and/or Debris control system ensuring materials provided shall conform to the NAS-412 FOD requirements per the industry standards.

**Q-16 TEST DATA**

When Buyer specifications require test data to be reported during the performance of acceptance testing, a copy of the recorded data showing evidence of Seller's inspection and verification of conformance shall accompany shipment of items to Buyer.



Record Retention:

After approval by the Buyer's representative, the test report shall be maintained on file by the Seller and shall be available for review for a minimum period of 3 years from date of final payment, unless otherwise specified by the Purchase Document.

**Q-17 CONTAINER MARKING**

A container is any packaging containing one or more articles to be delivered that must be clearly and permanently marked with:

- Quantity
- Batch or Lot Number
- Date of Manufacture or Shipping Date, whichever controls shelf life limitation
- Hazardous Material Marking
- Specifications or Material Control Information Number (if applicable)
- Buyer's Part Number\* \*

\*Purchase Document Number, plus the Buyer's P/N and the Manufacturer's P/N must be on the Packaging slip as a minimum. Product that has a shelf life requirement shall be marked with this information and shall have remaining 75 percent of the time from the initial date of certification.

**Q-18 CHEMICAL MATERIAL(S)**

Each shipment of material with a finite shelf life shall be accompanied by documentation to determine expiration date based on the OEM method for determining useful life (date of manufacture, date of shipment or expiration date as applicable). Material shall have a minimum of 75 percent of the total available shelf life when received by Buyer. The latest SDS/MSDS for all Chemicals shall be supplied to Buyer upon request.

**Q-19 PROHIBITED MATERIALS**

The following materials shall not be contained in any deliverable product except where specified on drawing by note or material specification: Verification will be required; such as a C of A or XRF testing results included with documentation packet. These apply to parts procured as applicable.

- Cadmium or zinc in the construction or surface finish [(cadmium alloys or zinc alloys (e.g. brass));
- Pure, unalloyed cadmium or alloys containing 5 percent by weight or greater cadmium not completely over-plated by a Buyer approved material.
- Pure, unalloyed zinc or alloys containing 10 percent by weight or greater zinc not completely over-plated by a Buyer approved material.
- Zinc greater than 1% (weight/weight) unless dry film lubricant or a specific zinc alloy is present and expected.
- Magnesium or Selenium except internal to hermetically sealed devices.
- Unalloyed tin with less than 3 percent (by weight) alloy material.
- Corrosive solder fluxes (Type RA, etc.) unless detailed cleaning procedures are specified, along with appropriate verification methods to ensure removal of residue contaminants.
- Mercury or compounds of mercury.
- All radioactive materials including uranium, potassium, radium, thorium, and/or any alloy thereof.
- Incompatible dissimilar metals shall not be used in conjunction with each other unless specified in drawings or specifications'.
- Vinyl and Polyvinyl chloride (PVC) shall not be used as wire insulation or in any other product usage.
- No silicone is allowed on exterior component surfaces. If silicone is used internally by design, the product shall be hermetic to not introduce silicone contamination.

**Q-20 CERTIFICATION OF COMPLIANCE—C of C from Original Equipment Manufacturer (OEM) with FSCM/CAGE Code**

A certificate of compliance from the manufacturer (OEM) shall be provided with each shipment of material supplied against this Purchase Order. The certificate shall be signed and dated by the responsible manufacturer representative and shall certify that the material meets all applicable Buyer specification requirements or military/industrial specification requirements.

The C of C is to reference the following:

- Original manufacturer FSCM/CAGE Code Identification Number
- Purchase Document Number
- Manufacturer and/or Buyer Part Number and Dash Numbers
- Serial Number (if applicable)
- Any number the OEM's facility uses for material traceability (i.e.: Lot/date code number, job/shop order number, etc)

Variation to this clause will include consumable commodities (ie Metal stock or Chemicals). Certificate of Analysis with OEM Cage Code reference is acceptable in lieu of the C of C.

**Q-21 ONE LOT/DATE CODE**

All product shipped against this purchase order line item shall be from one manufacturer's lot/date code.

**Q-22 BUYER CONTRACTUAL REQUIREMENTS FOR PROVIDED ELECTRONIC DATA OR CAD FILES**

- Standard Drawings
 

Electronic Data or CAD neutral files (STP, IGES, DXF etc.), when provided by the Buyer – are offered only as an aid to manufacturing. No guarantee of compatibility or correctness of the file in relation to the drawing is given. The drawing and the Purchase Order are the only contractual documents for the requirement. If the Fabricator should find a conflict between the CAD file and the drawing, they are to immediately contact the Buyer for clarification as it may be an indication of a drawing issue.
- Simplified Drawings
 

Electronic Data or CAD neutral files (STP, IGES, DXF etc.), when provided by the Buyer on Simplified Drawings, are a component of the contractual requirements. As referenced on the drawing, both the CAD file and the drawing are to be used to manufacture the part. If the Seller should find a conflict between the CAD file and the drawing, they are to immediately contact the Buyer for resolution.

**Q-23 CRITICAL FINISH HANDLING**

Hardware finish/plating is sensitive to contamination during handling. The Seller shall appropriately handle the hardware to prevent contamination during handling. The Seller shall include the following label on all packaging:

**Q-24 FIRST ARTICLE INSPECTION REQUIREMENTS**

The First Article Inspection (FAI) Report shall be in accordance with the Buyer specified First Article Requirements set forth herein.

The format of the report shall meet the standard and requirements of FAI AS9100 Forms 1, 2, 3.

If a First Article Inspection Report was already submitted and the revision level of the drawing and/or parts list has changed then a Delta FAI shall be submitted for any changes affected due to the revision level change..

**Q-25 CERTIFICATION OF COMPLIANCE—C of C from Original Equipment Manufacturer (OEM)**

A certificate of compliance from the manufacturer (OEM) shall be provided with each shipment of material supplied against this Purchase Order. The certificate shall be signed and dated by the responsible manufacturer representative and shall certify that the material meets all applicable Buyer specification requirements or military/industrial specification requirements.

The C of C is to reference the following:

- Purchase Document Number
- Manufacturer and/or Buyer Part Number and Dash Numbers
- Serial Number (if applicable)
- Any number the OEM's facility uses for material traceability (i.e.: Lot/Date Code number, job/shop order number, etc.)

For consumable commodities (e.g., Metal stock or Chemicals) a Certificate of Analysis is acceptable in lieu of the C of C.