LSP Technologies, Inc.
Supplier Quality Requirements
A-501 Revision 1

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Purpose
To define the requirements that must be fulfilled by Suppliers to LSP Technologies, Inc. and to describe how Suppliers can work together with LSPT to improve the processes, products and services they provide.

Scope
This document applies to all Suppliers of products and services used in the production of LSPT products. It is not applicable to Suppliers of consumable products.

Users
Suppliers
Purchasing
Quality

References
AS9100
ISO 9001
US Anti Kick-Back Act of 1986

Definitions
LSPT – LSP Technologies, Inc.

1.0 Introduction

Competing in today's industrial equipment and services market requires our products to be of high quality, delivered on time, increasingly within short lead-times and at competitive cost. The objectives of this manual are to describe the requirements, which Suppliers to LSPT should meet, and how our Suppliers can work together with LSPT to improve the processes, products and services on which all our businesses are based.

2.0 Working together

LSPT wishes to work closely together with our key Suppliers to build mutually beneficial relationships. Areas of focus are:

2.1 Communication

Communications should include regular reviews between companies providing our suppliers with visibility of our forward schedules, plans and product changes and LSPT with visibility of our suppliers' problems and corrective action plans.

2.2 Continuous improvement

We will work together with our suppliers to enhance product functionality, reduce costs and improve delivery and lead-time.

2.3 Access

Suppliers shall provide access to their facilities and applicable records involved in the order for LSPT, our customers and regulatory authorities for co-operation on product, process and business issues.

2.4 Notification of organization changes

Changes to the Supplier's organization that may affect quality shall be notified in advance to LSPT. These changes include company ownership, company name, manufacturing location, quality approvals, significant changes to process and/or product, inspection techniques, or suppliers. Where required, LSPT approval shall be obtained for such changes.

3.0 Shipping direct to stock

It is our policy to reduce the duplication of inspection by LSPT and our Suppliers wherever there is an established history of satisfactory quality. Such goods will be received direct to stock by LSPT with zero incoming inspection. When required by LSPT purchase orders, Suppliers shall record results of inspection and submit these results with the goods.

4.0 Business ethics

It is a requirement of some LSPT customers that LSPT and our Suppliers comply with the US Anti Kick-back Act of 1986. This stipulates that business gifts and hospitality shall neither be offered nor accepted, except those of small intrinsic value.

5.0 Quality system requirements

It is expected that all Suppliers to LSPT meet the requirements of this section, which are based on requirements from ISO 9001 and AS9100. Preference will be given to Suppliers holding quality management system certifications to ISO 9001 or AS9100. LSPT may audit Suppliers to verify their quality management system. Where the Supplier's practice differs from these requirements, application may be made to LSPT for specific approval. Suppliers are re-evaluated, normally every two years, as part of our quality management system.

5.1 Management responsibility

Supplier shall have a clearly documented quality policy, which is understood, implemented and maintained at all levels. Responsibility and authority of personnel affecting quality shall be clearly defined. A management representative with responsibility for quality shall be designated.

5.2 Quality system

Suppliers shall maintain a clearly documented quality system.

5.3 Contract review

Orders or contracts shall be formally reviewed to ensure that the Supplier has the technical and logistical capabilities to meet the requirements. Any discrepancies or queries shall be resolved before the order or contract is accepted. Amendments to orders or contracts shall be formally reviewed.

Records of contract review shall be maintained. Verbal instructions or agreements are not permitted.

5.4 Design control (only applicable if design activities are undertaken for LSP Technologies, Inc.)

Design inputs and outputs shall be adequately specified (e.g. by relevant specifications). Formal documented reviews shall be held at appropriate stages of design. Designs shall be checked by verification and validation. All design changes shall be documented and approved by authorized personnel before implementation. Design shall account for critical items and key characteristics of the product, where applicable.

5.5 Document and data control

Pertinent issues of documents (drawings, specifications, etc.) shall be available where required for performing or checking operations affecting conformity to product requirements. Obsolete documents shall be promptly removed from points of issue or use (or otherwise assured against unintended use). Corrections to production or quality documents must be indelibly recorded, dated and authorized. The original version must be retrievable after the change.

5.6 Purchasing

Suppliers shall be evaluated and selected based on their ability to meet specified requirements. A list of approved suppliers shall be maintained. Purchasing documents shall clearly describe the relevant drawings and specifications (including issue status) and the quality requirements to be applied, including customer requirements where applicable.

5.7 Product identification and traceability

The status of material and product shall be clearly identified at all stages. The traceability of individual batches shall be identified and controlled when specified on the order documents.

5.8 Process control

Manufacturing processes shall be defined by documented procedures. Criteria for quality shall be defined in a clear and practical manner. Where processes cannot be fully verified by subsequent inspection or testing (e.g. welding, brazing, heat treatment), such processes shall be performed by qualified operators or suitable process control parameters shall be established.

5.9 Non-deliverable software

For software used in manufacturing or inspection/testing of deliverable hardware or in acceptance of deliverable software, such software must be controlled. Examples of non-deliverable software are CNC machining programs and coordinate measuring machine programs. The following controls must be defined:

a. Process, documentation and approvals used to ensure that requirements for the software design and function are met
b. Process for proving with objective evidence that the software performs its required function
c. Process, documentation and approvals required for releasing software for use (approval must be independent of the software author)
d. Method of ensuring that software cannot be modified without authorization
e. Process for controlling revisions to software
f. Method for storing master copies of software
g. Process of issuing working copies to users
h. Process of logging and investigating software faults

Where such controls are not implemented then products manufactured using software shall be inspected to ensure that any software defects or changes do not affect the product conformity to specified requirements.

5.10 Inspection and testing

The amount and nature of inspection of incoming product shall be specified. Incoming product shall be controlled to ensure that it is not used until any specified inspection has been completed. In-process and final inspection shall be performed according to documented procedures. Inspection and testing shall account for critical items and key characteristics where applicable. All inspection and test operations shall be satisfactorily completed prior to shipment of the product.

5.10.1 First article inspection

The Supplier shall provide a First Article Inspection Report. This is required for the first batch produced from a new or modified drawing, or after change of the manufacturing process or as directed by LSPT purchase order. A 'first article' is a representative sample from the batch, which shall be inspected for conformance to mechanical and/or performance requirements, wherever possible by a means independent of the normal manufacturing process.

5.10.2 Inspection plans

Inspection plans may be provided by LSPT to specify which drawing or specification dimensions on a given part or assembly are required to be inspected. Alternatively, inspection plans may be generated by the Supplier. The purpose of inspection plans is to reduce the amount of inspection performed but still to ensure that the part conforms to specified requirements. In the absence of an inspection plan, all specified dimensions must be inspected.

5.10.2.1 Supplier generated inspection plans

The Supplier may generate and approve an inspection plan by selecting dimensions for inspection, which are produced at the same time by a common process and tool. The dimension with the tightest tolerance shall be taken to represent all dimensions

produced by the common process. At least one dimension from each common process must be included in the inspection plan.

5.11 Control of inspection, measuring and test equipment

Inspection, measurement and test equipment shall generally have accuracy 10 times greater than the component tolerance it is used to measure. Accuracy of 4 times greater may be acceptable provided it is justified by a measurement uncertainty analysis. All measuring and test equipment (used to demonstrate conformance of product) shall be calibrated with reference to national standards. Such equipment shall be clearly marked with identification of its calibration status, including expiry date. Records of calibrated equipment shall be maintained. When equipment is found to be out of calibration, actions shall be taken to identify and rectify any affected product including product already shipped.

5.12 Inspection and test status

The inspection and test status of product shall be identified to indicate conformity or nonconformity.

5.13 Control of nonconforming product

Nonconforming product shall be segregated to prevent unintended use. LSPT approval shall be obtained for the disposition of nonconforming product. Repaired or reworked product shall be re-inspected to specified requirements. If it is proposed to rework product then such rework shall be documented by the supplier and approved by the same functions that performed the original process review and approval. Scrap must be defaced to prevent unauthorized salvage. Nonconforming product shall not be shipped to LSPT without prior authorization. In the event that the Supplier becomes aware that nonconforming product has been shipped to LSPT without prior authorization, the Supplier shall notify LSPT at Quality@LSPT.com within three business days with information about the shipped nonconforming product. Repeated applications for the same nonconformity will not be accepted. The Supplier may make application to LSPT for advance permission to deviate from the specified requirements (drawing, specification, etc.) for a quantity of units or period of time.

5.14 Corrective and preventive action

In the event of a nonconformity, effective corrective and preventive actions shall be taken and documented. If a nonconformity in supplied product is notified to the supplier by LSPT, the results of corrective and preventive actions shall be submitted to LSPT in a timely manner.

5.15 Handling, storage, packaging, preservation and delivery

Effective methods shall be used to prevent damage or deterioration of product during handling, storage and delivery.

5.16 Control of quality records

All records pertaining to quality (orders, design documents, inspection records, material certificates, etc.) shall be stored and maintained in a legible form for a minimum of 10 years.

5.17 Internal quality audits

Internal audits shall be scheduled and performed to demonstrate the effectiveness of the quality management system. Timely and effective corrective actions shall be taken on any deficiencies identified by quality audits.

5.18 Training

Personnel shall be appropriately trained for the activities they perform. Records of training shall be maintained.

5.19 Servicing (only applicable if servicing is undertaken for LSP Technologies, Inc.)

Servicing shall be performed to documented and approved procedures.

5.20 Personnel Awareness

The Supplier acknowledges and accepts full and sole responsibility to maintain an environment that ensures the quality management system includes provisions for the awareness of all personnel for their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.

5.21 Flow Down Requirements

Supplier shall flow down to sub-tier suppliers the applicable requirements, including customer requirements, imposed on purchase orders or contracts from LSPT.

5.22 Product Safety

The Supplier shall implement processes needed to assure product safety during the entire product life cycle for those products delivered to LSPT. These processes shall be appropriate to the Supplier and the products being delivered to LSPT.

5.23 Counterfeit Parts Prevention

The Supplier shall not deliver Counterfeit Products to LSPT. The Supplier shall only purchase items to be delivered or incorporated as Product to LSPT directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM), or through an OCM/OEM authorized distributor chain. Product shall not be acquired from independent distributors or brokers unless approved in advance in writing by LSPT. For purposes of this clause, Product consists of those parts delivered under a Purchase Order or Contract that are the lowest level of separately identifiable items (e.g., articles, components, goods, and assemblies). "Counterfeit Product" means a Product that is or contains items misrepresented as having been designed and/or produced under

an approved system or other acceptable method. The term also includes approved Product that has reached a design life limit or has been damaged beyond possible repair but is altered and misrepresented as acceptable.

The Supplier shall immediately notify LSPT with the pertinent facts if it becomes aware or suspects that it has furnished Counterfeit Product to LSPT. When requested by LSPT, the Supplier shall provide OCM/OEM documentation that authenticates traceability of the affected items to the applicable OCM/OEM.

5.24 Change Requests

The Supplier may request a specification change by submitting a Deviation Request Form to Quality@LSPT.com. The Supplier shall not deliver products or services with requested changes to LSPT without receiving documented approval from LSPT through the Deviation Request Form. The Deviation Request Form can be accessed from the LSPT website at https://www.lsptechnologies.com/quality.php.