

Supplier Quality System Requirements And Purchasing Specification

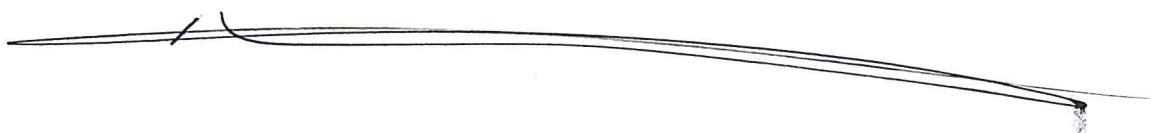


**Revision 1
10th January 2018**

Authorised By:

Andy Hughes

Group Quality Manager

A handwritten signature in black ink, appearing to read "Andy Hughes", is written over a horizontal line. The line starts at the left edge of the page and ends at the right edge, with a small flourish at the end.

Issue	Date	Changes (Amendments are in bold italic)
1	10/01/2018	Initial Issue

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QUALITY REQUIREMENTS FOR SUPPLIERS / SUB-CONTRACTORS

1.1 INTRODUCTION

- 1.1.1 The purpose of this specification is to define the minimum quality system requirements that suppliers / sub-contractors are expected to operate in order to prevent the occurrence of non-conformity and to provide evidence of control and compliance with production data.
- 1.1.2 Tritech cannot meet these commitments to its customers without a commitment to quality from its suppliers / sub-contractors. Accordingly, Tritech will select only those suppliers / sub-contractors who fully accept responsibility for the quality of products and services they supply and can demonstrate this through both the quality systems they operate and in their delivery performance.
- 1.1.3 Tritech aim to provide its customers with products and services that meet their needs and expectations over the life of the product or service. This is achieved by meeting specification requirements and utilising techniques that enable a process of continuous improvement.

1.2 ORGANISATION

- 1.2.1 The supplier / sub-contractors shall have an organisation with defined responsibilities for personnel engaged on work affecting quality, there shall be a Management Quality Representative with resources to ensure the requirements of this standard are implemented and maintained irrespective of other responsibilities. Tritech shall be notified on changes in company ownership, senior management, organisation structure or quality representative.

1.3 QUALITY SYSTEM

- 1.3.1 The supplier / sub-contractors shall maintain a documented quality management system that defines the procedures and methods employed to ensure that the products or services supplied to Tritech conform to the specified requirements.
- 1.3.2 In the event of a situation where as an organisation supplying product to Tritech. Does not hold any relevant third party approval, the supplier / sub-contractor MUST be able to demonstrate good process, system and traceability techniques with a clear understanding of what our business requires. These suppliers / sub-contractors will be closely monitored by purchasing and supplier quality assurance to ensure product quality and delivery performance. This may include a formal audit by ourselves.

1.4 CONTRACT REVIEW

- 1.4.1 The supplier / sub-contractor shall review every order from Tritech to verify that the requirements are adequately defined and documented, that risks have been identified and addressed and that the manufacturing / service resources are capable of meeting the requirements.
- 1.4.2 It shall be the supplier's / sub-contractor's responsibility to notify Tritech Purchasing department of all feasibility and risk concerns and for ensuring these are resolved before commencement of production.
If the supplier's / sub-contractor's manufacturing plan includes sub-contract operations, details of such operations and of the sub-contract source shall be advised to Tritech purchasing department for their approval. The supplier / sub-contractor shall ensure that no major build or majority of the

build value is / are sub-contract operations carried out before receipt of written approval from Tritech

1.5 DESIGN CONTROL

1.5.1 The requirements for design control apply only in the following circumstances:-

- a) When a supplier / sub-contractor receives an enquiry or purchase order to design a product to Tritech specification.
- b) When a supplier / sub-contractor of a proprietary product received an enquiry or purchase order to customise the product to a Tritech specification.
- c) When a supplier / sub-contractor receives an enquiry or purchase order which includes the design and manufacture of tooling.

The supplier / sub-contractor shall establish a design control system that includes the following requirements:-

- i) A review of the Tritech. Specification to identify incomplete, conflicting or ambiguous requirements which shall be resolved with Tritech engineering Department, via the Purchasing Department.
- ii) The production of drawings that define product acceptance / rejection criteria and fulfil the Tritech. specification requirements. Drawings shall be subject to Tritech Engineering Department approval, together with design and stress calculations when applicable.
- iii) Design changes shall be identified and be subject to Tritech Engineering Department approval, via submission through Purchasing Department.
- iv) Samples shall be manufactured and documented inspection and test records maintained, verifying compliance to both the design requirements and the Tritech specification.

1.6 DOCUMENT CONTROL

- 1.6.1 The supplier / sub-contractor shall maintain a documented procedure to ensure there is a controlled distribution of all documents relating to the requirements of this standard. Documents and subsequent changes to them shall be approved by authorised personnel and be available at the point of use with all obsolete documents promptly removed from use.
- 1.6.2 The supplier shall maintain effective configuration management control, and at all times ensure the full identification and traceability of parts supplied through an effective audit trail that ensures products are made/supplied to Tritech specified requirements. Release documents supplied to Tritech with the product, should enable Tritech to verify the correct configuration of the product.
- 1.6.3 The supplier is responsible at all times for ensuring their document control system effectively ensures the correct issue documents for Tritech work are available at point of use and are effectively authorised and controlled. Any queries regarding applicability/ issue of documents, should be referred to Tritech QA prior to manufacturing.

1.6.4 The control of purchase orders, drawings and specifications issued by Tritech shall be included in this procedure which shall ensure these documents are available to the supplier / sub-contractor.

1.7 PURCHASING

1.7.1 The supplier / sub-contractor shall select sub-contractors on a basis that shall include their ability to meet quality requirements. This should include a risk assessment of the suppliers ability to provide the product / service to specified requirements. Sub supplier / sub-contractor assessment shall be carried out by an appropriate combination of surveillance of their quality systems and evaluation of capability from previous quality performance records as documented by the supplier / sub-contractor. Purchasing documents shall clearly describe the product or service required by reference to all the applicable drawings, specifications and other relevant technical data.

1.8 TRITECH SUPPLIED PRODUCT / TOOLING

1.8.1 The supplier / sub-contractor shall maintain procedures for the control of product and tooling supplied by Tritech. It shall be verified on receipt of such product / tooling that it is correctly identified and received in an undamaged condition. The product and / or tooling shall be stored in a suitable area to prevent loss, damage or deterioration with particular attention being paid to the environment (humidity, temperatures etc.). The product and tooling shall be issued only for work carried out against Tritech purchase orders. Any such product or tooling that is lost, damaged or found to be unsuitable for use shall be recorded and reported to the Tritech Purchasing Department as soon as possible.

1.9 PRODUCT IDENTIFICATION AND TRACEABILITY

1.9.1 The supplier / sub-contractor shall maintain procedures for identifying the product during all stages of production and delivery. For each batch of product delivered to Tritech it must be possible to trace raw materials back to the material manufacture. When Tritech supply product, deliveries from the supplier / sub-contractor must be traceable to the delivery documentation supplied by the supplier / sub-contractor shall provide certification with every delivery to enable traceability within the Tritech organisation. The type of certification will be specified on the Tritech purchase order and shall only be signed by the appropriate members of the Tritech Purchasing Department.

1.10 PROCESS CONTROL

1.10.1 The supplier / sub-contractor shall plan the production and ensure manufacturing processes are carried out under controlled conditions in a suitable environment. There shall be suitable work instructions defining the methods of production and specified product acceptance criteria. Inspection and testing shall be carried out on receipt of incoming material, during the course of manufacture and on finished product, in accordance with documented quality plans and procedures. Records shall be maintained which provide evidence that the product has passed inspection and test to the defined criteria. Records shall be traceable to the person authorised to verify product acceptability. Where an inspection stamp system is used there shall be a documented procedure to control their issue and use which will ensure that the company and responsible person can be identified from the stamp impression.

- 1.10.2 The product / tooling shall be identified throughout manufacture to indicate the inspection and test status. The product / tooling shall be held at each stage of manufacture until the planned inspection and test has been satisfactorily completed.
- 1.10.3 The use of sampling techniques in inspection shall be subject to prior approval by Tritech.
- 1.10.4 Key product characteristics as identified on the drawing must be 100% inspection, the use of sampling plans is not acceptable in these circumstances.
- 1.10.5 Statistical process control (SPC) techniques shall be an option used for controlling the manufacture of parts.

1.11 INSPECTION, MEASURING AND TEST EQUIPMENT

- 1.11.1 The supplier / sub-contractor shall make available sufficient and adequate measuring and test equipment to enable verification of conformance of the product to the specified requirements. The equipment shall be maintained and periodically calibrated against standards that are traceable to National Standards, in accordance with calibration procedures. The number and indicator of its calibration status shall uniquely identify each piece of equipment. A record shall be maintained for each piece of equipment showing its identity number, frequency of calibration, calibration method and calibration result against the acceptance criteria.

1.12 CONTROL OF NON-CONFORMING PRODUCT

- 1.12.1 The supplier / sub-contractor shall maintain procedures to control non-conforming product and prevent inadvertent use. These shall include methods for identifying, segregating, evaluating, documenting, rectifying and disposing of the product. Deviation to product design shall be subject to prior approval by Tritech Engineering Department through the Tritech Purchasing Department. Prior to delivery a concession or production permit may be raised and submitted to Design for acceptance and / or comment.
- 1.12.2 For Aerospace parts, all, non conforming or scrapped parts must be identified/ segregated and supplied back to Tritech for disposition/disposal. Under no circumstances should scrap or defective parts be retained by the supplier.

1.13.1 CORRECTIVE ACTION

- 1.13.1 The supplier / sub-contractor shall document and maintain procedures for taking corrective action to prevent the recurrence of non-conforming product and for ensuring that such actions are effective. This shall include the implementation of 100% inspection whilst the causes are being investigated and preventive actions being implemented.
- 1.13.2 The supplier / sub-contractor shall formally advise Tritech of the causes of the non-conforming product, action being taken and implementation dates. Reject / non-conforming product shall be recorded.

1.14 PRODUCT PRESERVATION

- 1.14.1 The supplier / sub-contractor shall maintain documented procedures to control the methods used for handling, storage, packaging and delivery of the product to prevent damage or deterioration.

The product shall be handled / packaged to preserve product quality to the point of receipt at Tritech premises as per requirements specified on the Tritech order. Hazardous product, “FOD” specified product, product requiring special storage conditions, and product with limited shelf life, shall be clearly marked on each container to indicate the restrictions or limitations of use. All containers within a delivery shall be marked with the product identification.

1.15 DELIVERY REQUIREMENTS

1.15.1 Tritech requires that its suppliers achieve 100% on time delivery, and we monitor our suppliers' performance on achieving this.

Where on time delivery targets are not met Tritech will supply data to the supplier, who is required to submit a corrective action plan.

If delivery cannot be achieved to the scheduled date the supplier must notify Tritech at the earliest convenience.

1.16 QUALITY RECORDS

1.16.1 The supplier / sub-contractor shall maintain documented procedures defining the maintenance of quality records. Quality records shall be maintained so that they are readily retrievable and not subject to deterioration, damage or loss. Records appertaining to product supplied to Tritech or to processes used in the manufacture of product supplied to Tritech including all documentation pertaining to traceability requirements (material certificates, job / routing cards, release paperwork, concessions etc.,) shall be retained for the life of the part, product or appliance. Records may be disposed of only with the written approval of the Quality Manager. As an alternative to storing hard copies of quality records they may be scanned into a computer system and stored as electronic media provide there are suitable computer “back up” systems that meet the quality system requirements of Tritech.

1.17 INTERNAL QUALITY AUDITS

1.17.1 The supplier / sub-contractor shall carry out planned internal quality audits to verify the correct operation of procedures and the effectiveness of the quality system. The audits shall be carried out in accordance with documented procedures and to a planned schedule by trained individuals who are independent of the function begin audited. Results shall be documented and deficiencies found are promptly corrected with methods put in place to prevent recurrence.

1.18 TRAINING

1.18.1 The supplier / sub-contractor shall maintain procedures for identifying the training needs and providing the training for all personnel performing activities affecting quality. Personnel shall be suitably qualified and proven competent for these activities on the basis of appropriate education, experience and training.

Records of training shall be kept within a suitable environment, as to prevent deterioration, and made readily available upon request of the Tritech Purchasing Department.

1.19 SUPPLIER / SUBCONTRACTOR ASSESSMENT BY TRITECH

1.19.1 Suppliers / sub-contractors are assessed by Tritech, the assessment being on the basis of a combination of the following factors:-

- a) Completion of a Supplier Assessment Questionnaire by the supplier / sub-contractor. This shall indicate either an existing valid approval as a result of third party assessment to an acceptable and recognised national or international standard, or the presence and successful operation of systems required by this standard.
- b) A survey of the suppliers / sub-contractors facilities, quality systems and records to determine the potential ability to meet the requirements of this standard and the product quality requirements. Audit reports will be completed by the Supplier Quality Assurance Engineer to indicate the level of compliance.
- c) Supplier Risk Assessment
- d) Non-conforming / rejected product received from a supplier / sub-contractor shall be recorded in order to analyse the supplier performance out over a period of time. A Non-Conformance Report (SRN/NCR) will be issued with the rejected product to the supplier / sub-contractor, identifying the reasons for rejection.
- e) Adequate and timely response to discrepancies found in the suppliers / sub-contractors quality system or on notification of receipt of non-conforming product.

- 1.19.2 Tritech maintains an approved supplier / sub-contractors list, based on the assessment, from which the Purchasing Department is authorised to purchase parts, products or appliances. Unsatisfactory supplier / sub-contractor performance can result in non-inclusion or removal of a supplier / sub-contractor from the list.
- 1.19.3 In order that Tritech can comply with the terms and conditions of its approvals and customer commitments, it is necessary that supplies / sub-contractors provide right of access for its representatives and its customer. Free access shall be provided to enable review of all systems, documentation and records associated with the manufacture and control of productions supplied to Tritech.

1.20 SUPPLIER MONITORING

- 1.20.1 The performance of the Supplier will be monitored. Notification of any Targets, PPM Rates, Required Actions, Commitment, Quality and Delivery will be reported as required.

Supplier performance shall be monitored through the following indicators:-

- delivered product quality;
- customer disruptions including field returns;
- delivery schedule performance
- special status customer notifications related to quality or delivery issues.

1.21 GOVERNMENT, SAFETY AND ENVIRONMENTAL REGULATIONS

- 1.21.1 All materials used in product, part manufacture shall satisfy current government and safety constraints on restricted, toxic and hazardous materials; as well as environmental, electrical and electromagnetic considerations applicable to the country of manufacture and sale.

1.22 CONFIDENTIALITY

- 1.22.1 The supplier should ensure the confidentiality of Tritech Precision Ltd and their customer products / documentation along with all other related information.

1.23 SUPPLIER CODE OF ETHICS

- 1.23.1 Suppliers shall be compliant with the Tritech procurement policy (Supplier code of ethics and compliance) This shall be flowed down to all staff.