



## 1.0 PURPOSE & SCOPE

This document defines the general requirements, flow-down minimum requirements, and quality standards to all suppliers providing component parts, assemblies, sub-assemblies, raw material, and/or services to FTI Flow Technology, Inc., hereafter referred to as FTI.

Suppliers of parts to FTI Flow Technology, Inc., hereafter referred to as FTI, shall refer to this document to determine the quality requirements applicable to the item(s)/services being supplied. Each Supplier shall be held responsible for fulfilling the stated requirements for each delivered lot of component parts, assemblies, sub-assemblies, raw material, and/or services as well as assure all sub-contractors comply with the applicable requirements.

## 2.0 RESPONSIBILITIES

- 2.1 FTI shall be responsible for definition of the requirements set forth herein based on customer, industry, and regulatory agency requirements.
- 2.2 FTI's Purchasing Department shall be responsible to ensure that the all applicable requirements for procuring component parts, assemblies, sub-assemblies, raw material, and/or services are clearly communicated to suppliers through purchasing documents.
- 2.3 Suppliers providing component parts, assemblies, sub-assemblies, raw material, and/or services to FTI shall refer to this document to determine the quality requirements specific to the product being supplied. Each supplier is responsible to fulfill all stated requirements upon delivery of each lot of product or material as well as assure all sub-contractors comply with applicable requirements. Suppliers are also responsible to implement and maintain the processes, systems, procedures, and competence necessary to meet those requirements.
- 2.4 Supplier's shall notify FTI of any changes in product and/or process, changes of suppliers, changes in manufacturing location and, where required by FTI's purchase order, obtain FTI's approval.

## 3.0 CONTRACT REVIEW

Suppliers are required to review all FTI purchase order requirements to confirm their ability to comply with the stated requirements. An acceptance of FTI's purchase order constitutes an acknowledgement the Supplier shall comply with all FTI purchase order requirements including the transfer of all applicable requirements of the purchase order to sub-contractors.

Records of the supplier's contract review should be maintained and available to FTI upon request.

## 4.0 SUPPLIER QUALITY REQUIREMENTS

FTI has established criteria for selection, evaluation, and re-evaluation of its suppliers.

Suppliers of direct materials to FTI that maintain an effective Quality Management System, such as ISO 9001 or AS9100, certified by an accredited Certification Registration Body (CRB) will be preferred over suppliers without certifications.

Suppliers providing calibration services to FTI shall maintain a calibration system in accordance with ANSI/NCSL Z540- 1: Calibration Laboratories and Measuring and Test Equipment – General Requirements,

ISO 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories, or ISO 10012-1, Quality Assurance Requirements for Measurement Processes as applicable.

Suppliers to FTI may not sub-contract with foreign sources without written permission from FTI.

#### **5.0 FOREIGN (non U.S.) SUPPLIER REQUIREMENTS**

Foreign suppliers shall be required to implement and maintain an effective Quality Management System – such as AS9100C, or equivalent. Foreign suppliers not certified to an approved quality system requirements shall be evaluated by FTI through quality self-assessments and/or quality audits at the discretion of FTI to determine suitability and acceptability of supplier processes to satisfy contractual requirements.

All raw materials originating in foreign countries must meet any imposed FAR/DFAR requirements as applicable. (See Section 9.0)

All certificates and documentation provided to FTI as evidence of compliance must be in English and meet the requirements of FTI procedure, QM-61906-83, “Acceptance Criteria for Documentation” available on the supplier portal on FTI’s website.

#### **6.0 FLOWDOWN REQUIREMENTS TO SUB-CONTRACTORS**

FTI reserves the right to specify or approve sub-contractors chosen by its direct suppliers for work performed on FTI component parts, assemblies, sub-assemblies, raw material, and/or services material. This includes, but is not limited to, special process, materials testing services, distributors, and other sub-contractors.

Foreign Suppliers to FTI may not sub-contract with other foreign sources without written permission from FTI.

#### **7.0 RIGHT OF ACCESS**

Each Supplier shall provide to FTI and FTI customers, or specified third party (Government and/or Regulatory Agency) representatives, the right of access to the supplier's facility and access to all records and documents specifically related to verification of compliance to FTI contractual requirements.

#### **8.0 CHANGE NOTIFICATION**

Suppliers shall notify FTI in writing of any changes at their manufacturing facility or sub-tier’s facility prior to the change. These changes include:

- Plant Location or Layout
- Enterprise Resources Planning
- Top Level Organization and personnel at key positions
- Key suppliers
- Key processes
- Changes that impact Capacity or Capability affecting any FTI product.

#### **9.0 FAR/DFAR REQUIREMENTS**

Where required by contract terms and conditions or purchase order, Federal Acquisition Regulations (FAR) and Department of Defense Federal Acquisition Regulation Supplements (DFARS) shall apply. The supplier

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shall maintain evidence of compliance to the FAR/DFAR requirements. This evidence of compliance must be immediately available to FTI upon request. The FAR/DFAR requirements shall be transferred to sub-contractors, when applicable.

When applicable, Supplier Certificates of Conformance shall specifically state compliance to DFAR 252.225-7014, Alt I, Preference for Domestic Specialty Metals, where assemblies, sub-assemblies, component parts, or raw material delivered contain specialty metals. Suppliers may be required to provide original raw material mill/melt certifications where required by FTI Customers or Regulatory Authorities. Statement of Compliance will not be required where an active Domestic Non- Availability Determination (DNAD) is in place for the material delivered.

All certificates and documentation provided to FTI as evidence of compliance must be in English and meet the requirements of FTI procedure, QM-61906-83, "Acceptance Criteria for Documentation" available on the supplier portal on FTI's website.

### 10.0 SPECIAL PROCESSES

Special processes related to FTI component parts, assemblies, sub-assemblies, raw material, and/or services include the application of chemical, metallurgical, nondestructive, or any other special manufacturing, joining, or inspection process shall be controlled by federal, military, industry, national, international, or other specifications. All special processes shall be performed to latest revision of the specification unless otherwise stated in the FTI purchase order requirements.

In addition, suppliers may be required to use FTI customer approved sources when specified in the purchase order. Use of unapproved sources may result in the return of products by FTI to the supplier at the supplier's expense.

**Note:** Special processes include, but are not limited to, anodizing, chemical conversion, heat treat & stress relief, non-destructive testing (NDT), plating, passivation, solid film lubrication, and weld & metal joining.

### 11.0 INSPECTION & CONTROL OF KEY CHARACTERISTICS

FTI design specifications may contain characteristics (dimensions, features, etc.) designated as Key Characteristics. FTI has determined these characteristics have the greatest influence on product fit, form, performance, service life, or manufacturability. Where product key characteristics are designated, Suppliers shall perform 100% inspection of those characteristics.

All inspection data for each key characteristic shall be submitted to FTI with the applicable component parts, assemblies, sub-assemblies, raw material, and/or services for review by FTI.

### 12.0 PROTOTYPE PARTS

Where required by contract terms and conditions or purchase order, FTI may require one or more prototype component parts, assemblies, sub-assemblies for design approval, verification, validation.

The requirements stated in Section 19.0 of this document also apply to prototype electronic assemblies or sub-assemblies.

### 13.0 INSPECTION/SAMPLING PLAN REQUIREMENTS

Sampling plans used by suppliers to evaluate the conformance of non-key characteristics of component parts, assemblies, and sub-assemblies for FTI shall be based on an approved acceptance sampling

standards, such as ANSI/ASQ Z1.4: Sampling Procedures and Tables for Inspection by Attributes (previously MIL-STD-105), unless otherwise approved by FTI. All drawing characteristics shall be included.

The sampling plan must provide an Acceptable Quality Level (AQL)  $\leq 1.0\%$ , Inspection Level II, Normal inspection. Plans may vary depending on the criticality of the item being manufactured. Each supplier should maintain a written sampling plan or may use FTI's plan (QM-61906, Section 75-0046, and "Quality Inspection Sampling Plan.")

Use of appropriate statistical techniques may be used to evaluate and change the sampling plan.

Any reported non-conformities of component parts, assemblies, sub-assemblies found during sample inspection are subject to the conditions stated in Section 14.0.

#### **14.0 CONTROL, DISPOSITION, & ACCEPTANCE OF NON-CONFORMING PRODUCT**

Suppliers shall assure component parts, assemblies, sub-assemblies, raw material, and/or services meet the requirements of FTI design and purchase order requirements.

Suppliers shall notify FTI about all component parts, assemblies, sub-assemblies, raw material, and/or services items that do not meet all FTI design and purchase order requirements. These items will not be accepted without written approval from FTI Quality and Engineering.

Supplier requests to FTI for deviation from requirements shall be sent to the FTI buyer and shall include the following information:

- a) FTI part number/revision level
- b) FTI purchase order and item number
- c) The quantity of parts impacted by the discrepancy
- d) The applicable drawing requirement
- e) Measurements defining the actual condition
- f) The heat/lot number (as applicable)
- g) The root cause(s) of the deviation
- h) Corrective action(s) to prevent recurrence.

The FTI Buyer, with input from FTI Quality and Engineering, will respond to the supplier with the FTI's decision regarding the deviation request. FTI will accept only the non-conforming

Product related to the deviation request. The non-conforming product shall be shipped by the supplier with a copy of the FTI approved deviation request.

#### **15.0 CORRECTIVE AND PREVENTIVE ACTION**

Suppliers may receive a formal request for corrective action from FTI in the form of a Supplier Corrective Action Request (SCAR) when previously supplied component parts, assemblies, sub-assemblies, raw material, and/or services are found to be non-conforming. SCARs may be issued as a result of issues detected at FTI or on component parts, assemblies, sub-assemblies, raw material, and/or services returned to FTI from FTI customers.

The Supplier shall investigate the issue, determine root cause, and introduce corrective actions to prevent recurrence. FTI may choose to audit the supplier based on the severity or frequency of the issue.

## 16.0 DOCUMENTATION REQUIREMENTS

All documentation specified in FTI's purchase order shall be submitted with each delivery of component parts, assemblies, sub-assemblies, raw material, and/or services in accordance with the following descriptions.

FTI shall only accept component parts, assemblies, sub-assemblies, raw material, and/or services without the specified documentation when a specific exclusion is stated in the purchase order.

All supplier documentation provided to FTI as evidence of compliance must be in English and meet the requirements of FTI procedure, QM-61906-83, "Acceptance Criteria for Documentation" available on the supplier portal on FTI's website.

### 16.1 First Article Inspection Reports (FAIR)

When specified in the FTI purchase order, shall complete and submit a full First Article Inspection Report under the following conditions:

- 1) First time production of a part;
- 2) A change in the design affecting fit, form, or function of a part (all drawing revisions);
- 3) A change in manufacturing processes that can potentially affect fit, form, or function;
- 4) Manufacturing location or facility change;
- 5) A lapse in production of a part for greater than two years.

All First Article Inspection Reports ~~submitted for aerospace products and materials~~ shall be according to the requirements and format of AS9102, current revision.

### 16.2 Certificates of Conformance (C. of C.)

Suppliers shall include a written statement indicating the delivered product complies with all FTI purchase order requirements. When additional certifications from sub-contractors are applicable to component parts, assemblies, sub-assemblies, raw material, and/or services, these certificates shall be traceable to the FTI purchase order.

The following information shall be included on a supplier C. of C.:

- a) FTI part number and revision letter.
- b) FTI purchase order and item number
- c) The Supplier name
- d) The ship date
- e) The material identification (grade, type, etc.)
- f) The lot/batch/heat/serial number (as applicable)
- g) An approval signature and/or stamp by the supplier's approval author (electronic signatures are acceptable)

### 16.3 Material Certificates

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When specified in an FTI purchase order and/or drawing, each delivery of component parts, assemblies, sub-assemblies, raw material, and/or services shall include a certificate which clearly identifies material traceability back to its origin (heat no., batch no., etc.) The material certificate shall include the elemental analysis and/or physical test reports.

#### 16.4 Certificates from Special Processes

All certificates from special processes (Refer to Section 8.0 of this document) shall include a complete description of the special process performed, including, as applicable:

- a) The process name, revision, type, method, class, grade, etc.
- b) A statement the process was performed by approved or certified personnel.
- c) Reference to the applicable specification and any information required by the specification.
- d) An approval signature and/or stamp by the supplier's approval authority (electronic signatures are acceptable)

#### 16.5 Casting Certificates

Casting certificates shall include, as applicable, chemical analysis, physical test reports, non-destructive test reports, heat treat certifications, and applicable inspection reports.

#### 16.6 Calibration or Test Certificates

Certificates from suppliers performing calibrations or external testing shall include:

- a) A title (e.g. "Test Report" or "Calibration Certificate");
- b) The name and address of the laboratory, and the location where the tests and/or calibrations were carried out, if different from the address of the laboratory;
- c) Unique identification of the test report or calibration certificate (such as the serial number), and on each page an identification in order to ensure that the page is recognized as a part of the test report or calibration certificate, and a clear identification of the end of the test report or calibration certificate;
- d) Identification of the method used;
- e) A description of, the condition of, and unambiguous identification of the item(s) tested or calibrated;
- f) The date of receipt of the test or calibration item(s) where this is critical to the validity and application of the results, and the date(s) of performance of the test or calibration;
- g) Reference to the sampling plan and procedures used by the laboratory or other bodies where these are relevant to the validity or application of the results;
- h) The test or calibration results with, where appropriate, the units of measurement;
- i) The name(s), function(s) and signature(s) or equivalent identification of person(s) authorizing the test report or calibration certificate;
- j) A statement to the effect that the results relate only to the items tested or calibrated.
- k) A statement confirming the measurements are traceable to NIST.
- l) If applicable, the conditions (e.g. environmental) under which the calibrations were made that have an influence on the measurement results;
- m) If applicable, the uncertainty of measurement and/or a statement of compliance with an identified metrological specification or clauses thereof.

### 16.7 Functional Test Data Sheets

When the FTI purchase order of reference FTI drawing requires use of an FTI acceptance test procedure, a copy of the applicable test data sheet(s) shall be submitted to FTI with delivery of the parts. The test data sheets shall include an approval signature and/or stamp by the supplier's approval authority (electronic signatures are acceptable).

### 17.0 CONTROL OF SUPPLIER RECORDS

The Supplier shall maintain all documentation associated with product origin, conformity, delivery and/or processes of FTI component parts, assemblies, sub-assemblies, raw material, and/or services for a minimum of ten years from final contract delivery. This documentation shall be made available to FTI personnel upon request.

All information provided to suppliers is proprietary data of FTI with all rights and titles reserved and are not to be used for reproduction of parts unless otherwise stated in the purchase order requirements.

### 18.0 FOREIGN OBJECT DEBRIS (FOD) PREVENTION

Suppliers must have a written FOD process or procedure for preventing, detecting, and removing foreign objects. The program should include the following, as applicable:

- FOD prevention shall be implemented in all applicable area;
- Parts shall be protected from handling damage in all areas;
- Suppliers shall document all FOD incidents and perform a root cause investigation;
- FOD prevention training shall be administered to all employees, as applicable;
- The FOD prevention process shall be periodically audited.

### 19.0 PREVENTION OF COUNTERFEIT PARTS

Suppliers shall be required to implement and maintain an effective process to mitigate the risks of receiving, using, and/or installing counterfeit or suspected counterfeit parts and/or materials in any items supplied to FTI in accordance with AS5553, "Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition" and/or AS6174A, "Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material."

All Certificates of Conformance for items provided to FTI as evidence of compliance must be in English and include a statement confirming compliance to AS5553 and/or AS6174A.

All certificates and documentation for electronic assemblies or sub-assemblies provided to FTI as evidence of compliance must be in English, include a statement confirming compliance to AS5553 and/or AS6174A, and meet the requirements of FTI procedure, QM-61906-83, "Acceptance Criteria for Documentation" available on the supplier portal on FTI's website.

### 20.0 PACKAGING AND HANDLING

Suppliers are responsible for determining suitable packaging/packing and take necessary steps in order to prevent damage and contamination to each shipment to FTI unless specific packaging instructions are required by the FTI purchase order. Suppliers are responsible for any damage to received product caused by inadequate packaging under normal shipping conditions.

Electronic components shall be packaged in electrostatically sensitive anti-static bags. Steel parts subject to oxidation shall be coated with rust preventive oil.

**21.0 GOVERNMENT IDENTIFICATION**

Marking methods and materials for U.S. Government jobs shall meet the requirements of MIL-STD-130 and shall be marked per drawing requirements. When ink stamping, the color of ink used shall contrast with the color of the part being marked and the composition of ink used shall be such that it will not damage the finish being marked.

**22.0 HEALTH & SAFETY**

Suppliers shall have documented and implemented policies and procedures to address Employee Health & Safety according to applicable laws and regulations where the work is performed. When possible; the health & safety system should be aligned to the ISO 45001 standard.

The Supplier shall ensure all personnel have received safety training appropriate to the work prior to performing the work. In addition, the supplier shall an implemented procedure for handling drug and alcohol abuse as part of his management System with a “no tolerance” policy regarding drug and alcohol abuse to ensure personnel are not under the influence of any intoxicating substances when performing work for FTI.

It is FTI’s policy that unacceptable H&S performance without improvement shall lead to suspension of the Supplier’s work until the implementation of proper measures and controls. Continued unacceptable performance, behavior, inability, or unwillingness to implement required H& S measures and controls shall lead to disqualification and termination of existing contracts.

Details of the Supplier’s H&S policies and procedures shall be submitted to FTI for review if requested. FTI reserves the right to audit SELLER on his premises to verify implementation of H&S management in accordance with the requirements of this section.

**23.0 GENERAL AWARENESS**

Suppliers are responsible to ensure that persons are aware of their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.

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