



TITFLEX QUALITY PROCEDURE

TITLE: SUPPLIER QUALITY REQUIREMENTS

**SOP: QA-803
Rev. R**

SPECIFICATION CHANGE HISTORY

REV LTR	EFFECTIVE DATE	DESCRIPTION-CHANGE	APPROVALS		
			REQ	DEPT. MGR.	QA
L	8/27/04	Revised Quality Code 33 to include additional information as requested by Hamilton Sundstrand. Added para. 11.2 for Self-Release.	GK 8/27/04	GK 8/27/04	GK 8/27/04
M	1/27/06	Added paragraph 34 for GE requirement.	JMH 1/26/06	JMH 1/26/06	JMH 1/26/06
N	6/08/06	Revised Quality Code #20 to comply with the requirements of SAE AS9102.	JMH 6/08/06	JMH 6/08/06	JMH 6/08/06
P	4/16/08	Updated to current Commercial Division Quality Requirements	LP 4/14/08	TB 4/15/08	JJM 4/8/08
Q	9/16/10	Updated Quality Codes and revised format.	LP 9/16/10	TB 9/16/10	JJM 9/16/10
R	8/30/17	Updated to add counterfeit parts clause per AS9100D requirements	AG 8/25/17	GR 8/28/17	CB 8/29/17

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1.0 PURPOSE

The procedure identifies the General and Supplemental Quality Requirements imposed on a supplier by the Purchase Order.

2.0 DEFINITIONS

Special Process - Those processes which modify or change the inherent physical, chemical, electrical or metallurgical properties of an item, or which remove or deposit material on an item in a non-conventional method. The processes may require a demonstration of operator or equipment capability or proficiency and require special controls for monitoring to specification. Processes such as Non Destructive Testing, Welding, Brazing, Heat-Treatment, Cleaning, Annealing, Chemical Processing, Anodizing, etc. are considered Special Processes.

3.0 ASSOCIATED DOCUMENTS

CQP 741 Purchase Order Processing, Review and Flow Down to Supplier

4.0 GENERAL QUALITY REQUIREMENTS

4.1 The following requirements apply to all Purchase Orders for product or services that are used in an end item deliverable to Titeflex's customers. General Requirements do not apply to MRO purchases such as paper, cleaning supplies and consumables that do not form a part of product delivered to customers.

The supplier shall:

- Maintain all quality records associated with the Purchase Order in good practice.
- Allow right of access by Titeflex, Titeflex's customer and regulatory authorities to all facilities involved with the order, and all applicable records.
- Notify Titeflex of any changes in product and/or process definition; and any nonconforming product.
- Ensure that no counterfeit parts or components are supplied by them or their sub-tiers.
- Flow down all requirements of the Purchase Order when sub-tiering.

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- 4.2 Failure to comply with requirements as specified on the Purchase Order, Drawing, General and Supplemental Quality Requirements, or Industry Specification/Standard shall be cause for rejection. Titeflex reserves the right to request rework, replacement and/or credit for nonconforming product(s).
- 4.3 The supplier is responsible for reviewing and complying with the Titeflex Corporation Terms and Conditions.
- 4.4 In addition to the General Requirements contained herein, Supplemental Quality Requirements as applied to a specific Purchase Order shall be identified on the Purchase Order as applicable. Suppliers are required to follow all Supplemental Quality Requirements.
- 4.5 The Titeflex Purchasing Department shall be the point of contact for requests for additional information and for questions concerning drawings, specifications, special processes, or other Purchase Order requirements.
- 4.6 The supplier is required to notify Titeflex of a change in name, ownership, relocation of facility, or significant change in the supplier's organization or supply chain.

5.0 ORDER OF PRECEDENCE

- 5.1 In the event there is a conflict of technical terms or conditions associated with a purchase, the order of precedence shall be:
- Text of Purchase Order
 - Drawing(s) referenced on the Purchase Order
 - Documents or Specifications referenced on the drawing
- 5.2 Unless otherwise specified, the order of precedence for determining "Special Process" specifications shall be as follows:
- Customer Drawing
 - Titeflex Top Assembly Drawing
 - Titeflex Sub Assembly Drawing
 - Titeflex Detail Drawing

6.0 QUALITY SYSTEM REQUIREMENTS

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- 6.1 Titeflex requires that its suppliers have a Quality System in compliance to, and certified by a third party registrar, to one of the following standards:
- AS 9100
 - ISO 9001
- 6.1.1 In lieu of a third party certificate, a supplier may have a documented Quality System implemented and a completed survey approved by Titeflex.
- 6.2 The supplier shall be responsible for the quality of all products supplied to Titeflex as well as all products purchased from subcontractors.
- 6.3 For product manufactured for Titeflex, the supplier shall ensure traceability throughout manufacturing, inspection, and test. This shall include traceability of materials to the heat or batch lot number, and traceability to personnel performing operations, inspections, and tests.

7.0 SPECIAL PROCESS REQUIREMENTS

- 7.1 Titeflex reserves the right to review and/or approve a supplier's and/or a supplier's sub-tier special process as defined by drawing, Purchase Order, industry specification/standard, and/or customer requirement.
- 7.2 The supplier is required to use customer-approved special process sources when identified within the Purchase Order and/or drawing. The use of an approved supplier does not relieve the supplier of any responsibility for compliance to the Purchase Order.
- 7.3 A deviation from a customer's approved supplier listing must be requested in writing and approved for use by the Titeflex Quality Management prior to use. Deviation from an approved supplier listing does not relieve the supplier of any responsibility for compliance to the Purchase Order.
- 7.4 Substitution of a dry film lubricant with an equivalent lubricant is not allowed unless authorized in writing by Titeflex Engineering and Quality.

8.0 NONCONFORMING MATERIAL

- 8.1 The supplier shall not have Material Review Board authority. Any nonconforming material requests for 'use as is' and 'repair' approval shall be documented and submitted

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to Titeflex for approval. The supplier shall withhold nonconforming material from shipment until the appropriate disposition has been determined and approved by Titeflex.

- 8.2 The Supplier shall notify Titeflex immediately when there is reason to suspect that product previously supplied to Titeflex may not be in accordance with the Certificate of Conformance and/or Purchase Order requirements. The supplier shall also promptly notify Titeflex of any circumstances related to materials, manufacturing, processing methods, design, etc. which may make a product susceptible to premature failure. Notification shall include identification of potential lots affected, quantity of parts, and any other pertinent information.
- 8.3 Titeflex Corporation reserves the right to return, at the Supplier's expense, any or all of a lot in which nonconforming product has been found and does not comply with the Purchase Order, drawing, industry specification, or contractual requirements.

9.0 CORRECTIVE ACTION

- 9.1 A Corrective Action Request (CAR) may be issued to the supplier as a result of a supplier deficiency or nonconformance. The supplier is responsible for completing the CAR and returning it to the Titeflex Quality Department within the due date specified on the CAR.
- 9.2 Corrective action may be subject to verification by Titeflex personnel at the supplier's facility. On-site visits shall be scheduled as required.

10.0 CERTIFICATIONS

- 10.1 Unless otherwise specified, a certificate of compliance shall be provided with each shipment and contain the following information, as a minimum:
- Shipment date
 - Supplier name and address
 - Product specification and revision
 - P.O. number
 - Part number and description
 - Quantity in shipment
 - Statement of conformance to all P.O. requirements
 - Name and title of personnel authorized to state compliance

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- 10.2 In the event that certifications, affidavits, test reports, etc. are invoked via the Supplemental Quality Requirements, the following shall apply:
- All documents must be identified to the Titeflex Purchase Order number and either the part number or description.
 - All documents must be legible, reproducible, complete, not cut off by the photocopying process and signed or facsimile signature stamped along with the person's name and title.
 - All documents must be either copies of original mill certifications, transcriptions of original mill certifications on the supplier's letterhead or reports on the supplier's letterhead.

11.0 SAMPLING INSPECTION

- 11.1 The frequency of inspection shall be in accordance with customer requirements. When no specific frequency of inspection is identified on the Purchase Order, the supplier may use sampling plans that contain Acceptable Quality Levels (AQL). Sampling plans must conform to a zero acceptance number ($C = 0$) and shall be statistically valid and appropriate for use. Critical characteristics and Non Destructive Testing (NDT) must be inspected 100%, regardless of the sampling plan used.
- 11.2 Sampling inspection may not be used in the re-inspection of nonconforming articles. Characteristics known to be nonconforming shall be inspected 100%. The remaining characteristics shall be inspected per the appropriate inspection plan for that characteristic.

12.0 SOURCE INSPECTION AND SELF-RELEASE INSPECTION

- 12.1 Titeflex, at any time, may request an on-site source inspection performed by a Titeflex Quality representative. The supplier shall be contacted by Quality to coordinate all source inspection activity.

13.0 TITFLEX AND TITFLEX CUSTOMER SUPPLIED PRODUCT & TOOLING

- 13.1 The supplier shall establish and maintain documented procedures for the control, verification, storage, and maintenance of supplied product and tooling provided by Titeflex or a Titeflex customer.
- 13.2 Titeflex and/or its customers reserve the right to perform on-site inspection and verification of tooling located at the supplier's facility.

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14.0 RECORD RETENTION

14.1 Unless otherwise specified, documentation supporting requirements of the Purchase Order shall be maintained on file, safe from damage, deterioration, etc. for a minimum of ten (10) years after completion of the Purchase Order. This documentation shall include, but is not limited to material certifications, test coupons, manufacturing and inspection records, radiographs and test reports. Titeflex shall be notified sixty days prior to disposal of documentation.

15.0 WORKMANSHIP

15.1 Workmanship shall be in accordance to drawing, customer specification, industry specification or standard, or any other specifications referenced.

16.0 HANDLING AND PACKAGING

16.1 The supplier shall establish methods and facilities for identifying, handling, and storing product to ensure against corrosion, damage, deterioration, or substitution.

16.2 All products are to be packaged as follows unless otherwise specified by Drawing or Purchase Order:

- Identified with Part Number and Purchase Order number.
- Packaged to prevent damage of product.
- All product supplied to Titeflex shall be free from oil, dirt, metal chips, etc.

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SUPPLEMENTAL QUALITY REQUIREMENTS

The following Supplemental Quality Requirements are in addition to General Quality Requirements *when identified on the Purchase Order*. These requirements form a contractual part of the Purchase Order.

Note: The codes for the Supplemental Quality Requirements are included in Titeflex's purchasing information system. Titeflex Quality Management is responsible for maintaining the codes and verifying the codes are consistent with the supplemental quality requirements listed in this document.

CODE

REQUIREMENT

- C1. Material Test Reports Required** - Material composition and physical test reports of each heat or batch lot are required. The reports must contain certification to the material requirements of the drawing and/or Purchase Order.
- C2. Titeflex Supplied Material** - In the event that parts on the Purchase Order were made from material supplied by Titeflex, a certificate or affidavit stating that only materials or parts supplied by Titeflex was used, is required.
- C3. Special Process Test Reports** - Non-destructive testing or special processes, such as heat treating, special cleaning, passivation, anodize, radiographic inspection, liquid penetrant testing, etc. is required by the drawing and/or Purchase Order for this order. A test report is required for each part number inspected along with the results from each test. The test report will include the specification or procedure used and its applicable revision letter. The person performing the test or an authorized representative will sign the report.
- C4. Defense Rating** - This order is rated for National Defense use. The supplier is required to follow the provisions of DPS Regulation 1, Section 7 in obtaining materials or products needed to complete this order. The priority number shall be referenced on the Purchase Order.
- C5. Shelf Life** - The date of manufacture and / or cure date shall be marked on the item or unit container. In addition, the batch number will be placed on the identifying label. The date of expiration shall also be marked on the item or unit package. All

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items provided under this requirement must have at least 80% of its usable life left at the time of receipt at Titeflex.

- C6.** Cancelled – See C17.
- C7.** **Mercury Contamination** - A statement that the items supplied are free from mercury contamination is required with the shipment.
- C8.** **First Article Inspection Requirement** - A completed First Article Inspection Report (FAIR) is required and must be provided with the first shipment of this product. Items to be included in the FAIR are 100% dimensional inspection results on a minimum of five (5) samples and certifications for all materials and special processes.
- C9.** **Frozen Design / Processes** - Proposed changes in design, fabrication methods, raw material procurement sources and/or the use of new processes which were previously approved by Titeflex, either by continuous procurement from the supplier or approved by formal letter, must be documented and approved in writing by Titeflex before implementation.
- C10.** **Subcontracting** – Sellers that provide product not produced by the seller (sub-contracted goods) must be able to provide objective evidence of inspection of product (either by the seller or their subcontractor) to assure compliance to Titeflex drawings, specifications and/or purchase order requirements.
- C11.** **DFARS Requirement for Wire** – Raw material melt source to be from qualifying country sources listed in DFARS Subsection 225.872-1 per DFARS 252.225-7014.
- C12.** **Requirement for AMS Spec Cert** – Supplier shall provide certification to AMS 5689 specification for the raw material.
- C13.** Cancelled.
- C14.** Cancelled.
- C15.** Cancelled.
- C16.** Cancelled.

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C17. Requirement for Certification to TMH – Supplier shall provide certification to TMH requirements for the finished product.

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