

**Arconic Engineered Structures Norwalk Operations (herein known as RTI-LA)
SUPPLIER REQUIREMENTS MATRIX**

Specification No. Q-023-RLA

CODE	SUBJECT	REQUIREMENT
01	Quality System Requirements	<p>1) The supplier is responsible for meeting all requirements of specifications, drawings, identification of relevant technical data and other purchase order instructions relating to the following:</p> <ul style="list-style-type: none"> - Requirements for approval of product or process - Personnel qualifications - Requirements for inspection, testing and certification <p>2) Records must be kept for a minimum of 10 years. Supplier procedure shall include what production records, test records and test samples are kept, and where the records and test samples are stored for final retention.</p> <p>3) The supplier shall notify RTI-LA of any change in product and/or process definition. If fixed practices are in place approval of any product and/or process changes must be granted in writing by RTI-LA prior to making the change.</p> <p>4) All requirements of Q-023-RLA and the purchase order must be flowed down to any sub-tier supplier.</p> <p>5) If during the P.O. review the Sub-tier determines that the requirements of the P.O. or specification cannot be met, the Sub-tier must: (1) notify RTI-LA and, (2) prior to processing obtain revised P.O. and/or instructions, in writing, stating services to be performed that are within capabilities of the Sub-tier.</p> <p>6) The supplier must notify RTI-LA in writing of any nonconforming material.</p> <p>7) For purchased products RTI-LA must issue in writing approval to ship any nonconforming material.</p> <p>8) The supplier shall allow right of access by RTI-LA, its customers, and all appropriate regulatory or governmental authorities shall have the right to enter supplier's facility at reasonable times to inspect the facility, goods, materials, applicable documented information, and any property of Purchaser covered by this order.</p> <p>9) Supplier must notify RTI-LA of any changes to NADCAP or Quality System Certifications.</p> <p>10) Supplier shall ensure that employees are aware of:</p> <ul style="list-style-type: none"> • their contribution to product and/or service conformity, • their contribution to product safety • their importance of ethical behavior <p>11) Counterfeit Material: The supplier and sub-tier suppliers shall have processes and controls to ensure no Counterfeit Material is delivered to RTI LA or RTI LA assigned customers. Supplier shall have a process that is compliant to the latest revision of AS6174. Supplier shall maintain documentation, i.e. Certificates of Manufacture, Certificates of Conformance, Independent third-party testing, and other documentation necessary to assure traceability to Original Equipment Manufacturer. The supplier and sub-tier suppliers shall disclose records of source, and chain of custody for any/all parts that become the subject of legal or counterfeit issues. The supplier shall provide immediate notification to RTI LA Buyer, and shall follow up with the completed documentation package within a reasonable time. This requirement has no time limit and extends beyond any other record retention stated herein or on the Purchase Order. Documentation shall be maintained per record retention requirement flow down, and be available upon request. Suppliers shall flow this requirement to all sub-tier suppliers, and their suppliers back to the original manufacture. Suppliers are required to assure full compliance through audits, third party audits, random compliance testing.</p>
02	Gage & Instrument Calibration	<p>A. Gage and instrument calibration procedures and system must conform to ISO-10012 & ISO/IEC 17025. B. The Vendor shall have a calibration procedure system that meets ISO-10012 specification for all process control equipment and recording instruments.</p>
03	Raw Material Certification	Certifications shall state "This material was produced by the process approved by RTI-LA".
04	100%-Dimensional Inspection	100%-dimensional inspection required unless your sampling plan has been approved, in writing, by RTI-LA Quality Assurance. Copies of the inspection reports shall be submitted with each shipment.
05	First Article Inspection	First Article Inspection shall be performed in accordance with the latest revision of AS 9102.
06	Nonconformance's	<p>If at any time the Sub-tier detects a process violation, purchase order noncompliance, raw material nonconformance or part nonconformance, RTI-LA shall be informed as soon as practicable. Nonconforming material or parts shall be segregated and tagged as nonconforming. Tags shall indicate the nature of the nonconformance. Root cause & corrective action shall be determined and submitted within 10 working days of detection of the nonconformance unless otherwise agreed upon by RTI-LA Quality Assurance.</p> <p>NOTE: Critical nonconformance must be addressed within 48 hours when so directed by RTI-LA Quality Assurance. RTI-LA disposition shall be obtained prior to release.</p>
07	Software Quality Assurance	Subcontractor's Software Quality Assurance System shall have approval of the RTI-LA Quality Assurance.
08	Heat Treatment/Instrumentation	Titanium subcontractor must comply with and certify to the current revision of AMS H-81200 and AMS 2750. The heat treatment suppliers must be NADCAP certified.
09	Customer Source Inspection	RTI-LA inspection/witness is required on this purchase order. Contact RTI-LA five (5) working days prior to performing services as required by the purchase order to arrange for source inspection/witness of operations or as required by P.O. or conversion release.
10	RTI Customer Source Insp.	RTI-LA's customer source inspection/witness is required on this P.O. Contact five (5) working days prior to performing services as required by this P.O. to arrange for source inspection/witness of operations or as required by P.O. or conversion release.
11	Change in Significant Personnel	Supplier must notify RTI-LA of significant changes to personnel (General Manager, Quality Manager, NDT level III personnel) and any additional significant personnel.
12	Raw Material Inspection	100% inspection required unless your inspection sampling plan has been approved by RTI-LA Quality Assurance. Copies of the inspection reports shall be submitted with each shipment.

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13	Approving & Implementing Specs. & Operating Procedures	A. Supplier procedure for approving and implementing specifications and operating procedures shall include how all changes or additions are documented and controlled. B. Supplier procedure shall include how old specifications and operating procedures are removed from service and how new ones are put in service. C. Supplier procedure shall include how RTI-LA is notified of all significant changes in the processing of the material.
14	Approving & Disqualifying Suppliers	A. The Vendor shall maintain a list of approved suppliers. B. The Vendor shall have a procedure for approving all suppliers. C. The Vendor shall have a procedure for disqualifying and requalifying suppliers.
15	Procedure for Certification of Raw Material	A. Supplier procedure shall include how production and test records are reviewed prior to the material being shipped. B. Supplier procedure shall include how the certification is reviewed to insure all the required information is included. C. Supplier procedure shall include who is authorized to approve the material for shipment and to sign the certification.
16	First Time Raw Material Inspection	A. The First Time Raw Material Inspection Report shall contain all applicable characteristics required by the P.O. and/or the purchase specification. The report shall be dated and signed by the person performing the inspection and testing, and shall be verified by another person. The first-time raw material shall be tagged, "First Time Raw Material". B. The first Raw Material Report shall be approved by an RTI-LA Quality Assurance representative prior to the vendor becoming an approved supplier of the raw material. A copy of the First Time Raw Material Report shall be forwarded to RTI-LA Quality Assurance when the finished material is shipped.
17	Statistical Process Control	A. The Vendor shall have a statistical quality control procedure approved by RTI-LA. B. The object of the statistical process control procedure is to continually reduce variation in the process. A CPK of 1.33 is considered the minimum acceptable level for any key characteristic of the material. C. Where SPC is required; copies of control charts, the control plan, and supporting documentation shall be available upon request.
18	Test Laboratory Control	The Vendor shall have a test laboratory or use a test laboratory that is NADCAP approved.
19	Calibration Procedure	The Vendor shall have a calibration procedure and system that meets ISO-10012 & ISO/IEC 17025 specifications for all process control equipment and recording instruments.
20	Corrective Actions	The Vendor shall have a Corrective Action procedure and system which shall be to identify and correct out of control situations and to improve process capability.
21	In-Process Audits	A. The Vendor shall monitor the effectiveness of their process by conducting periodic audits. B. The audit procedure and schedule shall be approved by executive management to assure independence and to establish the effectiveness of the system.
22	Buyer Evaluation	RTI-LA's customer has the right of access to Sub-tier facilities when accompanied by RTI-LA personnel.
23	Source Verification by Customer	Where specified in the contract, RTI-LA's customer or his representative shall be afforded the right to verify at source or upon receipt that purchased product conforms to specified requirements. Verification by the customer shall not absolve the Supplier of the responsibility to provide acceptable product nor shall it preclude subsequent rejection.
24	Customer Verification Limitation	When RTI-LA's customer or his representative elects to carry out verification at the sub-contractor's plant, such verification shall not be used by the Supplier as evidence of effective control of quality by the sub-contractor.
25	Quality Plan	A quality plan shall be prepared and submitted for RTI-LA's approval. Once developed, any deviation from the plan must be reported immediately to RTI-LA.
26	RTI-LA Observation	A. RTI-LA observation required - processing shall not take place unless observed by a qualified RTI-LA employee. B. RTI-LA source inspection required.
27	Lab - Rolls Royce Approval	Laboratory shall be approved by Rolls Royce before laboratory work is performed.
28	Lab - Pratt & Whitney Approval	Laboratory shall be approved by Pratt & Whitney before laboratory work is performed.
29	ASTM	All testing shall be in accordance with applicable ASTM specification.
30	Tensile Test	Tensile testing must be conducted at a strain rate of .065 in./in. minimum +/- .002 in./in. through yield with target rate being .003.
31	Calibration Procedures	Written calibration procedures must be sent to RTI-LA for all equipment or gages that are calibrated under this order. Any revision or change in procedure must be approved by RTI-LA Quality Assurance.
32	As Found - As Left	All calibration shall be conducted in accordance with the latest revision of ISO-10012 & ISO/IEC 17025, including "As Found" and "As Left" conditions.
33	Method of Calibration - ASTM	Method of calibration shall be in accordance with the latest revision of all applicable ASTM specifications.
34	Calibration Traceability	All verification devices and/or standards utilized shall be traceable to N.I.S.T. and a copy of the certification shall be provided to RTI-LA with calibration documentation.
35	Standards Change	Changes or revisions of industry standards shall be the responsibility of the company performing the calibration.
36	Subcontracting	No work shall be subcontracted without the prior written approval of RTI-LA.
37	Metal Assessment	Must certify that material supplied is free from radioactive contamination. Radioactivity is defined as 0.19 uSv (microsieverts) and above. Background levels in the United States range from 0.05 to 0.15 uSv.

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38	Quality Manual	Quality Manual must be in English
39	Acceptance Sampling	Where acceptance sampling is performed and the customer prior approval of the sampling plan, the plan shall be submitted to RTI-LA for customer approval.
40	Personnel Qualification	Personnel shall be qualified to Special Processes in accordance with appropriate specifications and industry standards. Evidence of qualification shall be provided.
41	Changes	RTI-LA shall be notified in advance of changes in product/process definition and obtain written approval.
42	Right of Access	RTI-LA, RTI-LA's customers and Regulatory authorities shall have the right of access to all facilities involved in the order and to all applicable records.
43	Audit	Annual audit required.
44	Flow down	Supplier must flow down to sub-tier suppliers the applicable requirements in the purchasing documents, including key characteristics where required.
45	Domestically Melted Material	Material must be melted domestically, and certification must state that material has been melted in the United States.
46	GE Lab Approval	The vendor shall have a test laboratory or use a test laboratory that is GE S400 approved.
47	Foreign Object Debris/Damage (FOD) Prevention	The vendor shall maintain a FOD prevention program that, at a minimum, contains the following elements: Design and/or Manufacturing Process Review, Performance Measurement, Training, Material Handling and Parts Protection, Housekeeping, Tool Accountability, Hardware Accountability, Lost Items, Physical Entry Control into FOD Critical Areas, and FOD Focal Point(s).
48	Acceptance Authority Media (AAM)	Supplier shall comply with the AS/EN/JISQ 9100 requirements and 14CFR Part 21.2 regarding the application of the Acceptance Authority Media (AAM) requirements. <ul style="list-style-type: none"> • Supplier shall ensure the use of AAM is clearly defined within the Quality Management System (QMS) and those of your supply chain • Can demonstrate evidence of communication to your employees and supply chain that the use of AAM must be considered as a personal warranty of compliance and conformity. • Maintain compliance to the AAM requirements by assessing your process and supply chain as part of your internal audit activities. Areas of focus for these assessments shall include, but not limited to: <ul style="list-style-type: none"> ○ Authority Media Application Errors (i.e., Omission, Typos, Legibility, etc.) ○ Authority Media Application Untimely Use (i.e. Documentation not completed as planned, "Stamp/Sign as you go". Etc.) ○ Authority Media Application Misrepresentation (i.e. Uncertified personnel, Falsification of documentation, Work not performed as planned, etc.) ○ Authority Media Application Training Deficiencies (i.e., Ethics, Culture awareness, Proper use of authority media, etc.)