

RENK America		Work Instruction		RENK
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management	
Revision:	2			
Effective Date:	3/25/2024	Approved By:		
Document Name:				

1.0 PURPOSE

To define and communicate RENK America First Article Inspection (FAI) requirements, First Article Testing (FAT), and End Item Data Package (EIDP) to ensure the process meets customer and internal requirements.

2.0 SCOPE

This document by reference therein supplements the subcontractors/supplier’s contract and component Technical Data Package (TDP).

3.0 AFFECTED ORGANIZATIONS

- 3.1. Quality Assurance (Supplier Quality Assurance – SQA)
- 3.2. Procurement

4.0 REFERENCES

- 4.1. F710-17 - First Article Inspection Report
- 4.2. F710-18 – Inspection Request Form and Checklist
- 4.3. ML710 – Procurement and Quality Manual
- 4.4. F710-4 - Supplier Quality Deviation Request
- 4.5. F710-19 - Supplier Quality Change Request

5.0 DEFINITIONS

- 5.1. **Technical Data Package (TDP)**: RENK America Issued Purchase Order, dimensional, material, process, environmental, inspections and performance requirements as specified by the drawing, Quality Assurance Requirement (QAR), Quality Assurance Provision (QAP), Supplier Quality Assurance Provisions (SQAP), RENK America specifications and/or military or commercial specifications.
- 5.2. **First Article Sample**: A production component (s) submitted as being representative of a production process using production tooling, equipment, methods, technique, standards, personnel, and controls.
- 5.3. **First Article Approval (FAA)**: First Article Approval is defined as the approval of the requirements of First Article Inspection (FAI), and/or First Article Test (FAT).

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

- 5.4. **First Article Inspection (FAI)**: Verification the First Article samples manufactured using the normal production process (planning, technical /work instructions, material processing systems and controls, tools, fixtures, test equipment and personnel proficiency) will produce a component in compliance with all TDP requirements (such as drawing dimensional characteristics, material content meet the physical and performance requirements of the TDP capability and performance, and all FAR/DFAR requirements).
- 5.5. **First Article Test (FAT)**: Tests conducted to verify the First Article samples meet the performance requirements of the TDP and all specified environmental and durability/endurance conditions.
- 5.6. **Supplier Quality Change Request (SQCR)**: An approved SQCR is required from suppliers for any of the following changes from the latest approved FAI:
 - 5.6.1. Qualified process or design
 - 5.6.2. Approved manufacturing source(s) or process(es)
 - 5.6.3. Approved inspection method(s)
 - 5.6.4. Location of manufacture
 - 5.6.5. Tooling or materials.

A delta FAI is required at a minimum after obtaining SQCR approval. SQCR Number should be documented on the Inspection Request WI710-18. Reference form F710-19

- 5.7. **Supplier Quality Deviation Request (SQDR)**: A deviation request results from when the parts produced do not meet contract requirements. Deviation requests are intended to address minor non-conformances discovered on RENK America product located in the supplier's facility. Suppliers cannot conduct Material Review Board (MRB) activities or dispositions on RENK America material. Approved deviations apply only to a specific non-conformance quantity provided by the supplier. Any subsequent shipment quantities that are not covered on the SQDR must meet TDP requirements. Reference form F710-4.

6.0 REVIEW AND APPROVAL OF THIS DOCUMENT

RENK America		Work Instruction		RENK
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management	
Revision:	2			
Effective Date:	3/25/2024	Approved By:		
Document Name:				

- 6.1. Review – SQA & Procurement Manager
- 6.2. Approval – SQA Manager

7.0 GENERAL

- 7.1. FAI shall be performed on production material. Once the samples are selected, no repair, adjustment or modification is permitted without approval.
- 7.2. A supplier of source control drawing items must also conform to the contents of this document. This includes all details and assemblies within the supplier's control.
- 7.3. The supplier must perform FAI at the top-level drawing; components and sub-assemblies called out on the top-level drawing do not require individual FAI submission; however, the supplier is fully responsible for the conformance of those components and sub-assemblies to their respective drawing requirements. The use of sub-tier supplier, receiving inspection, in process and final inspection data may be acceptable. RENK America reserves the right to select specific sub-assembly parts and characteristics deemed representative of the procurement for FAI validation purposes (as necessary). The parts used to satisfy the FAI requirement must be available to RENK America until FAI is approved. The traceability of the inspection records to the actual parts used is mandatory.
- 7.4. FAI shall be documented on RENK America’s Inspection Request Form (F710-18), and FAI Report (FAIR) (F710-17), unless approved in writing by the SQA prior to submitting. The SQA Lead will be responsible to ensure that the RAM requirements are met.
- 7.5. A RENK America SQA representative shall review the supplier's FAI results. The RENK America SQA Representative has the right to witness dimensional and performance verifications.
- 7.6. The FAI approval can only be granted by RENK America SQA representative once the supplier inspection data has been validated.
- 7.7. FAI must be performed in accordance with this work instruction process and any applicable quality clause requirements as stated on PO.

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

- 7.8. FAI approval will be in effect as long as the component is in continuous production. Continuous production is defined as follows:
 - 7.8.1. No lapse in delivery greater than two years
 - 7.8.2. No drawing revision change
 - 7.8.3. No manufacturing or sub-tier Location changes.
 - 7.8.4. No changes in design (if the supplier/subcontractor or his subcontractor(s) has design control of the item) (SQCR required)
 - 7.8.5. No changes in material (SQCR required)
 - 7.8.6. No changes to the manufacturing or assembly process (SQCR required)
 - 7.8.7. No changes to non-consumable tooling (SQCR required)
 - 7.8.8. No change in the source of supply (SQCR required)
- 7.9. The supplier shall submit any changes via SQCR F710-19, to the RENK America SQA email address DLCPs-SQA@RENK-America.com prior to implementation and FAI submission. SQCR shall include reasons and rationale for **proposed** change and testing to be conducted to validate performance of change.
- 7.10. Authorization to ship. product cannot be shipped prior to FAI completion and approval unless authorized in writing by RENK America.
- 7.11. Part Marking/Container Label Requirements: Part marking and/or container label requirements can be found on the part drawing. If no identification marking is shown on the drawing, then refer to ML 710 Supplier Requirements Manual, section 13.
- 7.12. Inspection Sampling Plan: RENK America utilizes the ANSI/ASQ Z1.4 standard Acceptable Quality Level (AQL) 4.0 sampling plan for normal inspection for determining acceptable quality levels, unless specified by another contract document. This sampling plan shall be flowed to all sub tiers.
 - 7.12.1. Accept on zero defects and reject the lot on one or more defects.

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

7.13. Shelf-Life: The seller shall identify those items and/or assemblies which have a specific shelf-life requirement. At a minimum, 80% of the product's shelf life must be applicable at time of receipt by RENK America.

7.13.1. The vendor must certify shelf life by noting the shelf-life expiration date from date of manufacture on packing slip and shipping label. Specify on outside of shipping container the words *****SHELF LIFE*****.

7.13.2. All Shelf-Life Items within the container must additionally have the shelf-life expiration date either directly on the product or where the data cannot be applied directly to the product, each item must be unit packed with the data clearly visible on the exterior of the unit pack.

7.14. Graded Fasteners: Grade 5/Grade 8 hex head and socket head fasteners, shall be purchased directly from only those manufacturers/distributors traceable to a known North American manufacturing source identified by the fastener head logo marking and written documentation.

7.14.1. Fastener suppliers shall verify certification with each shipment that documents the actual material chemistry, core hardness, or tensile strength and plating requirements as specified on the drawing/specification.

8.0 PROCEDURE

8.1. FAI Submission Requirements:

8.1.1. The FAIR (F710-17) and Inspection Request Form (F710-18), described in paragraph 7.4 shall be developed by the supplier and presented to RENK America by emailing the completed package as one .pdf file to RENK America SQA mailbox: DLCPS-SQA@RENK-America.com. FAI documentation submission requirements to RENK America are as follows:

8.1.1.1. Inspection Request Form (F710-18) with completed checklist, include any applicable pre-approved SQCR's (F710-19) or SQDR's (F710-4), noting so at the bottom of the Inspection Request Form

8.1.1.2. RENK America Purchase Order including any Ordering Data Sheets, Deviations, Waivers, and Test Results for FAT.

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

- 8.1.1.3. Include a copy of the Shipper/Packing Slip. If the P.O. flows out the QX5 Shelf-Life clause the Shipper/Packing Slip shall also include expiration date. (Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping and section 19 Quality Clause QX5)
- 8.1.1.4. Certifications to most current specifications required per the drawing. (Material, plating, finish, hardness, etc.) If different from stated specification on the drawing, include cancellation documents that provide the trail to the updated specification.
 - 8.1.1.4.1. Material/Component certification. The supplier must provide certifications which shows conformance to all drawing material requirements.
 - 8.1.1.4.2. Numerate certifications to correlate to FAI Report (F710-17), place the certification number in the Certification Number column on the FAI report.
 - 8.1.1.4.3. Certificate of Conformance for shipment, which will include the following information:
 - 8.1.1.4.4. Supplier name and RENK America Purchase Order number
 - 8.1.1.4.5. RENK America part number, product description, revision, and quantity
 - 8.1.1.4.6. Declaration regarding full conformance to all deliverable requirements
 - 8.1.1.4.7. Signature and title of the suppliers' designated quality representative
- 8.1.1.5. **Ballooned Drawing.** A ballooned drawing contains numbered "balloons" that point to individual dimensions and requirements of the part. The numbers on the ballooned drawing shall correlate with the numbers found on the FAI Report (F710-17).

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

All notes shall also be ballooned as well. Actual dimensional results are required; 'Accept' or 'OK' are not acceptable.

8.1.1.5.1. If a sub-tier supplier produces product for the supplier, the supplier is responsible to maintain the required inspection requirements to show conformance to the RAM TDP

8.1.1.5.2. Gauge accuracy is required for all measurements on the FAI report (F710-17). RENK America prefers a 4:1 ratio for gauging to inspect our product, however, realizes this may not be possible in all cases. (e.g., total drawing tolerance of .010", gauge accuracy required .0025" or better). Gauge accuracy can be found on the certification from the gauge manufacturer. (e.g., micrometers, calipers, bore gauges etc.)

8.1.1.6. If QAR, QAP, or SQAP applies:

8.1.1.6.1. Proof of Conformance to any applicable QAR, QAP, SQAP requirements as stated on the drawing.

8.1.1.6.2. If QAP, QAR or SQAP applies, the FAI Report (F710-17) shall include the characteristic ID #, inspection method and AQL inspection level, per QAR, QAP, SQAP.

8.1.1.6.3. An approved Supplier Quality Change Request (F710-19 SQCR) is required for any inspection method that deviates from required method, even if it is considered an equivalent or improved method. Performance or Electrical Test reports, as applicable.

8.1.1.7. Performance or Electrical Test reports. All performance tests will be conducted at the voltage, current, pressure and flow extremes as applicable and as specified for FAT Approval (e.g.,

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

18 & 30 volts versus 26 volts as normally required for acceptance prior to shipment).

- 8.1.1.8. RENK America approval letter for software, weld, or braze, as applicable
- 8.1.1.9. Photo submissions, please send colored pictures with submission in lieu of black/white:
 - 8.1.1.9.1. Picture of part marking on the component. If component marking is not required, provide a picture of the container label or parts that are bagged & tagged.
 - 8.1.1.9.2. Provide photo of container label per Packaging (Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping)
 - 8.1.1.9.3. Provide photo of shelf-life label, as applicable. (Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping and section 19 Quality Clause QX5)
- 8.1.1.10. Once the FAI has been completed, if nonconformances exist, the supplier is required to submit a deviation request by way of a Supplier Quality Deviation Request (SQDR). Please do not submit the FAI until the SQDR has been dispositioned. The SQDR Form (F710-4) can be found on the RENK America Webpage. More information can be found in the RENK America Procurement and Quality Manual (ML710).
 - 8.1.1.10.1. Once SQDR has been dispositioned, if approved, indicate the SQDR number on the Inspection Request (F710-18) form in the area provided as well as on the FAIR (F710-17) in the columns indicated.

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

- 8.1.1.11. Product containing nonconformances cannot be released for shipment without proper documentation approved prior to shipment
- 8.1.1.12. If submission is approved, RENK America will return your shipper with a stamp affixed to it, which authorizes shipment to RENK America. Product cannot be received at RENK America without a stamped shipper. The RENK America SQA Representative shall have the opportunity to witness all FAI activities, if desired.
- 8.1.1.13. The completed FAI shall be retained by the supplier for seven years after completion of the purchase order

8.2. Delta First Article Inspection (FAI) Requirements

- 8.2.1. Delta FAI is required for updates to the drawing or technical data packages, typically seen as revision changes. This includes, but is not limited to typographical corrections, distribution Statement changes, dimensional changes and note changes. A Delta FAI shall be developed by the supplier and presented to RENK America by emailing the completed package as one .pdf file to RENK America SQA mailbox: DLCPS-SQA@RENK-America.com. Delta FAI documentation submission requirements to RENK America are as follows:
 - 8.2.1.1. Inspection Request Form (F710-18) with completed checklist, include any applicable pre-approved SQCR's (F710-19) or SQDR's (F710-4), noting so at the bottom of the Inspection Request Form
 - 8.2.1.2. RENK America Purchase Order including any Ordering Data Sheets, Deviations, Waivers, and Test Results for FAT.
 - 8.2.1.3. Include a copy of the Shipper/Packing Slip. If the P.O. flows out the QX5 Shelf-Life clause the Shipper/Packing Slip shall also include expiration date. (Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping and section 19 Quality Clause QX5)

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

- 8.2.1.4. Certificate of Conformance for shipment, which will include the following information:
 - 8.2.1.4.1. Supplier name and RENK America Purchase Order number
 - 8.2.1.4.2. RENK America part number, product description, revision, and quantity
 - 8.2.1.4.3. Declaration regarding full conformance to all deliverable requirements
 - 8.2.1.4.4. Signature and title of the suppliers' designated quality representative
- 8.2.1.5. Ballooned Drawing for revision changes only. A ballooned drawing contains numbered "balloons" that point to individual dimensions and requirements of the part. The numbers on the ballooned drawing shall correlate with the numbers found on the FAI Report (F710-17). Any applicable note changes shall also be ballooned as well. Actual dimensional results are required; 'Accept' or 'OK' are not acceptable.
 - 8.2.1.5.1. Gauge accuracy for any is required for all measurements, applicable to revision changes, on the FAI report (F710-17). RENK America prefers a 4:1 ratio for gauging to inspect our product, however, realizes this may not be possible in all cases. (e.g., total drawing tolerance of .010", gauge accuracy required .0025" or better). Gauge accuracy can be found on the certification from the gauge manufacturer. (e.g., micrometers, calipers, bore gauges etc.)
- 8.2.1.6. Certifications, as applicable to revision change. (Material, plating, finish, hardness, etc.) If different from stated specification on the drawing, include cancellation documents that provide the trail to the updated specification.

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

8.2.1.7. If QAR, QAP, or SQAP applies:

8.2.1.7.1. Verification of QAR, QAP, SQAP characteristics, as applicable to revision changes. The FAI Report (F710-17) shall include the applicable characteristic ID #, inspection method and AQL inspection level, per QAR, QAP, SQAP.

8.2.1.7.2. An approved Supplier Quality Change Request (F710-19 SQCR) is required for any inspection method that deviates from required method, even if it is considered an equivalent or improved method.

8.2.1.8. RENK America approval letter for software, weld, or braze, as applicable to revision changes

8.2.1.9. Performance or Electrical Test reports, as applicable to revision changes

8.2.1.10. Photo submissions, please send colored pictures with submission in lieu of black/white:

8.2.1.10.1. Picture of part marking on the component. If component marking is not required, provide a picture of the container label or parts that are bagged & tagged.

8.2.1.10.2. Provide photo of container label per Packaging (Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping)

8.2.1.10.3. Provide photo of shelf-life label, as applicable. (Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping and section 19 Quality Clause QX5)

8.2.1.11. Once the FAI has been completed, if nonconformances exist, the supplier is required to submit a deviation request by way of a Supplier Quality Deviation Request (SQDR). Please do not

RENK America		Work Instruction		RENK
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management	
Revision:	2	Approved By:		
Effective Date:	3/25/2024	Document Name:		

submit the Delta FAI until the SQDR has been dispositioned. The SQDR Form (F710-4) can be found on the RENK America Webpage. More information can be found in the RENK America Supplier Requirements Manual (ML710).

8.2.1.12. Once SQDR has been dispositioned, if approved, indicate the SQDR number on the Inspection Request (F710-18) form in the area provided as well as on the FAIR (F710-17) in the columns indicated as applicable to revision change.

8.2.1.12.1. Product containing nonconformances cannot be released for shipment without proper documentation approved prior to shipment

8.2.1.13. If submission is approved, RENK America will return your shipper with a stamp affixed to it, which authorizes shipment to RENK America. Product cannot be received at RENK America without a stamped shipper. The RENK America SQA Representative shall have the opportunity to witness all FAI activities, if desired.

8.2.1.14. The completed Delta FAI shall be retained by the supplier for seven years after completion of the purchase order.

8.3. End Item Data Package (EIDP) Requirements

8.3.1. An End Item Data Packages (EIDP) is required for suppliers who are not current Delegate stamp suppliers. Non-Delegate suppliers are required to submit a data package for approval prior to shipment for all shipments to RENK America after receiving FAI approval, by emailing the completed EIDP package as one .pdf file to RENK America SQA mailbox: DLCPS-SQA@RENK-America.com. Reference ML710 Supplier Requirements Manual for further information on the RENK America Delegate Supplier Program. EIDP Submission requirements to RENK America are as follows:

8.3.1.1. Inspection Request Form (F710-18) with completed checklist, include any applicable pre-approved SQCR's (F710-19) or SQDR's (F710-4), noting so at the bottom of the Inspection Request Form

RENK America		RENK	
		Work Instruction	
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management
Revision:	2		
Effective Date:	3/25/2024	Approved By:	
Document Name:			

- 8.3.1.2. RENK America Purchase Order including any Ordering Data Sheets, Deviations, Waivers, and Test Results for FAT.
- 8.3.1.3. Include a copy of the Shipper/Packing Slip. If the P.O. flows out the QX5 Shelf-Life clause the Shipper/Packing Slip shall also include expiration date. (Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping and section 19 Quality Clause QX5)
- 8.3.1.4. Certificate of Conformance for shipment, which will include the following information:
 - 8.3.1.4.1. Supplier name and RENK America Purchase Order number
 - 8.3.1.4.2. RENK America part number, product description, revision, and quantity
 - 8.3.1.4.3. Declaration regarding full conformance to all deliverable requirements
 - 8.3.1.4.4. Signature and title of the suppliers' designated quality representative
- 8.3.1.5. RENK America approval letter for software, weld, or braze, as applicable.
- 8.3.1.6. Performance or Electrical Test reports, as applicable.
- 8.3.1.7. Photo submissions, please send colored pictures with submission in lieu of black/white:
 - 8.3.1.7.1. Picture of part marking on the component. If component marking is not required, provide a picture of the container label or parts that are bagged & tagged.
 - 8.3.1.7.2. Provide photo of container label per Packaging (Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping)

RENK America		Work Instruction		RENK
Document #:	WI 710-2	Responsible Organization:	700 - Quality - Process Improvement - Change Management	
Revision:	2	Approved By:		
Effective Date:	3/25/2024	Document Name:		

8.3.1.7.3. Provide photo of shelf-life label, as applicable.
(Reference ML 710 Supplier Requirements Manual, section 13 Packaging, Labeling, and Shipping and section 19 Quality Clause QX5

8.3.1.8. If submission is approved, RENK America will return your shipper with a stamp affixed to it, which authorizes shipment to RENK America. Product cannot be received at RENK America without a stamped shipper. The RENK America SQA Representative shall have the opportunity to witness all FAI activities, if desired.

9.0 HISTORY OF CHANGES

History of Changes

Revision: 0, Effective Date: Sep 15, 2020, Approver: Mark S Miller, Reason: New document needed to support ML 710 Supplier Quality Assurance Manual

Revision: 1, Removed all internal RAM requirements. Added further clarification of the requirements, removed F710-16 form requirement

Revision 2: 3/25/2024 – Revised sections 7.3 and 8.1.1.5.1 to remove the requirements for sub level part FAI requirements.

10.0 RECORDS

List(s) of Supporting Records

Title or I.D of Record	Governing Document	Retaining Department	Record Category
FAI Package	WI 710-2	SQA	Supplier Quality Records

11.0 EXHIBITS

11.1. N/A