Supplier Quality Requirements Manual

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1.0 Purpose

The purpose of this manual is to communicate the terms and conditions for supplying product against an Astronics-Armstrong Aerospace purchase order and the general expectations for sustaining status as an approved supplier.

2.0 Scope

Suppliers providing materials, product, or services, to an Astronics-Armstrong Aerospace purchase order, in one of the applicable categories defined in Section 9.0 of this manual.

3.0 Normative References

- ISO 9001:2008 Quality Management Systems- Requirements
- SAE AS9100C Quality Management Systems- Aerospace – Requirements
- SAE AS9102B (R) Aerospace- First Article Inspections – Requirement

4.0 Terms and Definitions

Buyer: An Armstrong Aerospace employee authorized to purchase materials and products on behalf of the organization.
Certificate of Conformance (CoC): A document furnished by the supplier certifying that, to the best of the organization's knowledge, the parts or materials provided comply with all relevant purchase order requirements.
Configuration Management: The management of the configuration of assemblies. Assemblies may consist of revision-controlled subcomponents. These require additional controls to ensure their subcomponents comply with their relevant and respective design revision.
Drop Shipments: Shipments directly to Armstrong Aerospace's customers, or other specified locations, per Armstrong Aerospace Purchasing or the purchase order.
First Article: A product manufactured for the first time.
Foreign Objects and Debris (FoD): Any material or contamination that can inadvertently affect the safety or conformity of a product or material.
Product (alternate definition: article): A product is a component built to a technical drawing. This may also be referred to as 'engineered components'.
Purchase Order: The contractual document specifying to the supplier, at a minimum and where applicable, the part number(s), quantities(s), revision level(s) and special requirements of the materials/parts to be purchased.
Raw Materials: Materials used to fabricate a product/engineered component. These may include wire, hardware, or electrical components.

Services: An intangible value-added deliverable. These may include general engineering services, ODAs, and material processes such as heat treating or finish.
Shelf Life Sensitive: A description of product having an expiration date.
Source Inspection: A source inspection is when Armstrong Aerospace elects to perform the incoming inspection of the purchased product or material at the supplier's site.

5.0 Introduction

Astronics Armstrong Aerospace (herein referred to as Armstrong Aerospace) is committed to aggressive business growth and cannot do so without suppliers that can be counted on to provide superior products delivered on time. Our goal is to set our suppliers up for success and reward high-performers accordingly. The intent of this manually is to communicate our supply needs consistently and as all-encompassing as possible. Any questions with regarding the interpretation of this manual should be addressed to your buyer or the Director of Quality. Moreover, the key to a successful supplier-customer relationship is has been communication, which is the recurring theme within this manual.

6.0 Order of Precedence in Supplier Requirements

The order of documents defining supplier requirements with regards to supplying product or materials to an Armstrong Aerospace purchase order is as follows:

1. The Armstrong Aerospace purchase order
2. The relevant accompanying drawing provided by Armstrong Aerospace
3. This Supplier Quality Requirements Manual

7.0 Supplier/Armstrong Aerospace Communications

The Armstrong Aerospace Buyer shown on the purchase order is the supplier's primary point of contact with that regards to that order and any commercial details. Armstrong Aerospace QC inspectors are authorized to communicate product rejections and requests for corrected quality documents to suppliers. Discrepant Material Reports (DMRs) or Incoming Inspection Reports (IIRs) communicated by Armstrong Aerospace QC inspectors do not imply a request for corrective action unless one is issued by Quality Assurance (see section 11.0). These may be communicated to ensure the supplier the opportunity to correct the condition and prevent further escapes. Any questions or concerns regarding rejections, requests for deviations, supplier corrective action reports or other Quality-related communicates should be directed to the Quality Engineer or Director of Quality. Any questions regarding interpretation of or changes to part drawings may be directed to the author of the relevant drawing, but the appropriate Armstrong Aerospace Buyer must be copied or included in the discussion.

It is the responsibility of the supplier to communicate any requirements outlined in this manual to any of their affected sub-suppliers where applicable.

8.0 Purchase Order Requirements, Interpretation and Contract Review

a. The Armstrong Aerospace purchase order communicates, at a minimum, the required part numbers, revision levels, quantities and on-dock delivery dates. Any special requirements in addition to these details will be provided elsewhere in the body of the purchase order (see Section 6.0 above for interpretation of requirements). These may include exempt design requirements (less finish or paint), releases, or drop-shipment details. These requirements supersede the referenced design data (i.e: part drawing).

b. The supplier is expected to perform a contract review upon receipt of an Armstrong Aerospace purchase order in accordance with ISO9001 clause 7.2.2 (Contract Review). The Armstrong Aerospace Purchasing Department is responsible for communicating all relevant technical data, and any subsequent revisions, necessary to support the purchase order. The supplier is responsible for confirming they possess all relevant technical data, at the revision level(s) specified on the purchase order, before committing to fulfilling that purchase order.

9.0 Supplier/Product Classes

Suppliers are categorized into supplier groups based on the scope of products or services the supplier sells. Each section of this manual notes its applicability to the different supplier classes. The criticality of the scope of the product or service classes to our end products dictates our criteria for selection, evaluation, and re-evaluation of suppliers. The criteria for each supplier class are as follows:

Class 1	
Supplier Groups:	Air Duct Tubing, Avionics (LRUs), Cable Harnesses/Electrical Assemblies, and other Engineered Components (Manufacturing processes such: Sheet Metal, CNC Machined, Composite, and Plastic)
Minimum Criteria for Initial Supplier Approval:	• Current ISO9001 certification or equivalent • Self-Evaluation via Survey • Armstrong Aerospace customer-specified sourcing • On-Site Supplier Audit by an Armstrong Aerospace Quality Assurance Representative as deemed necessary.
Evaluation Frequency and Method:	Supplier scorecards distributed monthly
Supplier Performance Objectives:	• ≥ 92% Quality Acceptance • ≥ 92% On-Time Delivery

Re-Evaluation Criteria:	Supplier performance to Quality and OTD are reviewed during a semi-annual vendor list review. Suppliers having met their Quality and OTD objectives, or demonstrate an effective plan for improvement, will maintain their status as approved vendors.

Class 2	
Supplier Groups:	Electrical Components (i.e: connectors, LSWDs, resistors, relays, switches, etc.), Hardware (i.e: screws, nuts, washers, cable ties, lace tie, etc.), and Raw Materials (i.e: wire, composite panel material, etc.).
Minimum Criteria for Initial Supplier Approval:	• Current ISO9001 certification or equivalent • Self-Evaluation via Survey • Armstrong Aerospace customer-specified sourcing
Evaluation Frequency and Method:	Supplier scorecards distributed monthly
Supplier Performance Objectives:	• ≥ 92% Quality Acceptance • ≥ 92% On-Time Delivery
Re-Evaluation Criteria:	Supplier performance to Quality and OTD are reviewed during a semi-annual vendor list review. Suppliers having met their Quality and OTD objectives, or demonstrate an effective plan for improvement, will maintain their status as approved vendors.

Class 3	
Supplier Groups:	ODAs, Engineering Services, Calibration Services
Minimum Criteria for Initial Supplier Approval:	• ODAs/DER Engineering Services: Provide applicable FAA certificates or letters of authority • Calibration Services: Provide ISO17025 or A2LA certification/accreditation. • Self-Evaluation via Survey • Armstrong Aerospace customer-specified sourcing
Evaluation Frequency and Method:	Maintain current certifications, accreditations or letters of authority on file.
Supplier Performance Objectives:	Not formally measured. Overall satisfaction with service is reviewed during semi-annual vendor list reviews.
Re-Evaluation Criteria:	Overall satisfaction with service is reviewed during semi-annual vendor list reviews. Suppliers providing satisfactory service, or demonstrate an effective plan for improvement, will maintain their status as approved vendors.

10.0 Supplier Performance Expectations and Measurement (Class Applicability: 1 and 2)

a. Quality: Suppliers are expected to deliver products, materials and services that comply with all design and workmanship requirements defined within the relevant part drawing(s) delineated from the Armstrong Aerospace purchase order.

b. On-Time Delivery: Suppliers are expected to deliver products, materials and services by the on-dock date noted on the Armstrong Aerospace purchase order. Any deliveries received after the on-dock date will be considered late. Deliveries may be made up to, but no earlier than, 7 days early.

c. Supplier performance is measured and reviewed monthly through supplier scorecard (see section 9.0 for applicability and objectives). Supplier performance is measured as follows:
    i. Quality: A supplier's monthly Quality rating is measured by the percent of PO line items, among all lots delivered that month, having passed incoming inspection, yielded no in-line rejections during assembly, and caused no quality escapes to Armstrong Aerospace's customers.
    ii. On-Time Delivery: A supplier's monthly OTD rating is measured by the percent of PO line item, among all lots delivered that month, delivered on the PO on-dock date or earlier.

d. Supplier corrective actions requests (SCARs) may be issued by Armstrong Aerospace Quality Assurance to suppliers that have failed to meet one or both of the objectives (see section 9.0 for applicability). The supplier is expected to complete the SCAR addressing the root causes of the low performance and submit the completed report by the noted due date. The supplier may use their own form as long as it includes the required inputs of the Armstrong Aerospace SCAR form.

11.0 Supplier Corrective and Preventive Actions (Class Applicability: All)

Supplier Corrective Action Requests (SCARs) may be issued to suppliers to address supplier performance below monthly objectives (see section 9.0), supplier audit findings, or to address particular supplier nonconformities. Unless otherwise directed, the supplier is expected to submit the completed SCAR by the noted Permanent Corrective Action Due Date to Armstrong Aerospace Quality Assurance copying the appropriate Buyer. The supplier may use their own form as long as it includes the required inputs of the Armstrong Aerospace SCAR form. If your corrective action investigation needs more time that allotted to submit the plan, you may request an extension in writing.

12.0 Product Conformance Requirements (Class Applicability: 1 and 2)

a. Quality (Design Requirements): Suppliers are expected to deliver products, materials and services that comply with all design requirements defined within the part drawing(s) delineated from the Armstrong Aerospace purchase order.

b. Quality (Workmanship) – *Cable/Electrical Assemblies*: Unless otherwise specified on the drawing, at a minimum, all cable and electrical assemblies must comply with the latest revision of IPC/WHMA-A-620 Class II workmanship requirements.

c. Quality (Workmanship) – *All Other Engineered Components*: Suppliers also are expected to deliver products, materials and services that conform to good workmanship standards. Specific workmanship standards shall be complied to when specifically referenced on the applicable part drawings.

i. (Class 1 Only) Armstrong Aerospace Engineering strives to clearly define all design and workmanship requirements within part drawings for our suppliers. However, per ISO9001:2008 clause 7.2.1(b), 'the organization shall determine requirements not stated by the customer but necessary for specified or intended use, where known'. Our expectation is that any such cause for clarification be addressed prior to commitment to fulfilling the Armstrong Aerospace purchase order. These may include workmanship parameters such as those concerning burrs, scratches, types of damage and other aesthetic conditions that may be considered nonconformities. Our general workmanship guidelines are as follows and do not necessarily constitute guaranteed acceptance/rejection criteria:

Variables:

1. **Lighting:** All cosmetic/aesthetic conditions shall be inspected in an environment with a minimum of 75 foot candles of light.
2. **Surface Classes:**
    a. Cosmetic: Any surfaces visible to the end customer that, if damaged, would result in a product rejection.
    b. Functional: Any surfaces, when cracked or otherwise damaged, can affect the end use or safety of the product. It is possible these surfaces may be both cosmetic and functional surfaces. Functional surfaces include, for example, the edge distance between a mounting hole and the edge of the part.

3. **Application:** The intended end use/purpose of the part. This determines the severity and acceptability of a workmanship defect.
4. **Allowances:** Tolerance limits for acceptable workmanship defects considering the variables defined above. See Table I below:

Table I – Workmanship Allowances

Defect Type	Surface Class	Application	Allowance
Scratches	Cosmetic	Structural Components (i.e: intercostals, doublers, and shims)	Scratches may be accepted so long as: - No paint or conversion coating has been removed from the part (no raw material exposed). - The scratch does not create a raised ridge than can be felt with one's finger. - No more than two scratches per square foot, meeting the criteria above, are present.
	Functional		Scratches are not allowed.
Burrs/ Sharp Edges	All	All	Unless otherwise noted on the drawing, all parts shall be free of burrs and sharp edge. A measurement method and related specification are being developed.
Weld Quality	All	All	Unless otherwise noted on the drawing, the seams between surfaces shall be ground to be uniform and smooth with no pin holes or 'icicles'.
Rivet Quality	All	All	Unless otherwise specified by the drawing, the workmanship of staked rivets shall comply with FAA AC 43.13-1B.
Part Markings	All	All	- All part markings shall be legible. - When specified on the drawing to mark the part number and revision level, the following format shall apply: [Part Number]␣"Rev"␣[Rev Letter] - Part markings shall be applied to the part in permanent ink in the approximate location where the applicable drawing specifies to "Mark the part … per MIL-STD-130". - Parts may be bagged and tagged with the identification information where the drawing specifies to "Identify the part…. per MIL-STD-130" and it is not feasible to mark the part (i.e.: too small).

d. Certificates of Conformity (CoCs): All suppliers are expected to maintain a system for controlling and assuring the quality of the products and materials they provide against an Armstrong Aerospace purchase order, and certify their products or materials to that fact. All products and materials shipped per an Armstrong Aerospace purchase order are required to be accompanied by a certificate of conformance (CoC). The CoC must certify that, to the best of the supplier's knowledge, the relevant products or materials have been produced within the requirements of the supplier's quality system and have been verified to meet all applicable design and workmanship standards (Note: see exception in section 12.0(e) below). Certificates of conformance must be signed by authorized personnel within the supplier's quality assurance system, or supported by a documented process that ensures certificates of conformance can only be issued after the products or materials have passed through the supplier's quality system. Acceptable signatures include signatures in blue or black ink by pen, or digital signatures supported by recognized authentication systems (i.e.: Adobe®). One's name typed using a cursive font does not constitute an authentic signature. The CoC content must reference the relevant Armstrong Aerospace purchase order number, part numbers, part revision levels (see Section 23.0 for configuration management requirements), quantities, and any approved deviations (see Section 12.0(e) below).

e. Deviations from Design: Suppliers may not alter or knowingly deviate from design or workmanship requirements specified in the relevant drawing or purchase order requirements. Design changes may be requested using form number F-PUR-105 (Supplier Design Change Request). Armstrong Aerospace Purchasing must be copied on all requests.

f. Temporary Deviation Requests: Temporary deviation requests may be made in writing to Armstrong Aerospace Quality Assurance, copying the appropriate Buyer, using form number F-PUR-106. The supplier may not ship product until the deviation request has been formally approved in writing by Armstrong Quality Assurance. When approved, the supplier must include a copy of the approved deviation with the shipment and make reference to it on their certificate of conformance.

13.0 Control of Nonconforming Product (Class Applicability: 1 and 2)

Purchased products or materials rejected for nonconformity to design or workmanship requirements may be disposed "Return to Vendor". Such rejections will be communicated to the supplier with a request for RMA (Return Material Authorization) and a copy of the discrepant material report (DMR) or incoming inspection report (IIR). Suppliers are expected to issue the RMA or otherwise address the request with Armstrong Aerospace Purchasing within 2 business

days *(Note: Issuing an RMA does not constitute the supplier's acceptance of responsibility for the perceived nonconforming product or materials)*. Products or materials returned to Armstrong Aerospace after rework must have the relevant RMA# referenced on the supplier's new certificate of conformance to indicate that the product shipped was returned after rework.

In the event nonconforming product is inadvertently released and shipped from your facility, the supplier is required to immediately notify the Armstrong Aerospace Quality Engineer or Director of Quality of the escape. This notification must be made or followed-up in writing. The supplier is expected to lead and support any containment action necessary.

14.0 Source Inspection (Class Applicability: 1)

Armstrong Aerospace may elect to institute a source inspection plan for some or all of the products or materials the supplier provides. This is determined and communicated by the Director of Quality and may be in response to an increase in product rejections, the criticality of a first article to a program, or the general size and weight of the product.

The general source inspection process is as follows:

1. The supplier will submit a source inspection request to the Armstrong Aerospace Quality Control Supervisor using form number F-PUR-103 (Source Inspection Request). This will communicate that the products or materials have been inspected through the supplier's quality system, have been deemed conforming to all design and workmanship requirements and are ready for source inspection. At this time, the supplier shall prepared all tests and inspection records confirming compliance.
2. If the source inspection request is accepted, the form will be completed as such by Armstrong Aerospace Quality Assurance and communicated back to the supplier. The supplier and the Armstrong Aerospace QA Manager shall make arrangements/schedule the source inspection time and date if the source inspection request is accepted.
    a. The Armstrong Aerospace QC Inspector will perform the source inspection on site and leave a source inspection report (form F-PUR-104) with the products or materials documenting any discrepancies identified.
    b. The supplier will correct the noted discrepancies and document their corrective action on the source inspection report (form F-PUR-104).
    c. The supplier will ship the product with a certificate of conformity, any other required documentation (i.e: test reports), and the original completed source inspection report after all discrepancies have been effectively corrected. The source inspector and the supplier may agree to correct the discrepancies (by the supplier) and verify the corrections made (by the source inspector) prior to the source inspector's departure from the facility.
3. If the source inspection request is waived by Armstrong Aerospace Quality Assurance, the form will be completed as such by Armstrong Aerospace Quality Assurance and communicated back to the supplier.

a. The supplier will then ship the product with the required certification of conformance, any other required documentation (i.e: test reports) and a copy of the Armstrong Aerospace Source Inspection Waiver (form F-PUR-103).

15.0 Supplier Quality System Requirements (Class Applicability: 1 and 2)

The supplier is expected to maintain a quality management system in accordance with the latest edition of the ISO9001 standard, or equivalent, at a minimum.

16.0 Recordkeeping (Class Applicability: All)

The supplier is required to maintain quality records related to all products, materials and services supplied to an Armstrong Aerospace purchase order for a minimum of 12 years. If the supplier wishes to no longer maintain those records at their facility, they may request in writing that they be transferred to Armstrong Aerospace for storage. Supplier quality records include, but are not limited to, certificates of conformity for the finished goods, certificates of conformity for support services and subcomponents (i.e: hardware, finishes, paint, and raw materials), electrical test reports, incoming inspection reports, in-process inspection reports, final inspection reports, and first article inspection reports.

17.0 Lot Traceability (Class Applicability: 1 and 2)

In accordance with the record retention requirements of Section 16.0, the supplier shall be capable to furnish all lot records for a given lot of product shipped to Armstrong Aerospace within 48 hours from notification of a quality escape. These records include, but are not limited to, mill certificates for raw material, CoCs for secondary operations, and test reports for any required functional testing (i.e: continuity test reports). See Section 24.0 for related product identification requirements.

18.0 Right of Entry (Class Applicability: All)

Armstrong Aerospace, its customers, and the applicable civil aviation authority (i.e: United States FAA) shall have the right of access to the supplier's facilities, processes and records related to the production of any items produced to an Armstrong Aerospace purchase order.

19.0 Process and Facility Changes (Class Applicability: 1)

The supplier shall notify Armstrong Aerospace Quality Assurance and Purchasing of any intended changes to the location where the purchased products or materials are manufactured, or significant changes to the manufacturing process. Significant changes may include a change to the whole manufacturing method or programming. Per the SAE AS9102 standard, these changes warrant a new first article inspection.

20.0 Control of Shelf Life Sensitive Material (Class Applicability: 1 and 2)

Assemblies supplied to an Armstrong Aerospace purchase order may be comprised of shelf life sensitive subcomponents (i.e: self-adhering tape, epoxies, etc.). It is responsibility of the supplier to ensure such subcomponents are within their expiration date at the time of assembly. It is recommended that suppliers maintain a shelf-life control program where applicable.

Armstrong Aerospace purchase orders may be orders for shelf-life sensitive materials. It is responsibility of the supplier to ensure such materials have at least 70% of their shelf life remaining at the time of shipment.

21.0 FOD (Foreign Objects and Debris) (Class Applicability: 1 and 2)

Foreign objects and debris are a particular threat to aviation safety. The supplier is responsible for ensuring the products and materials they provide to Armstrong Aerospace purchase orders are free of FOD. Common FOD includes metal fines from machining, tools, tool components, dirt, and wire clippings.

22.0 First Article Inspection (Class Applicability: 1)

Products supplied to an Armstrong Aerospace purchase order must be delivered with a first article inspection report (FAIR) compliant to the latest version of the SAE AS9102 standard if one of the following conditions apply:

1. The product(s) is being manufactured and delivered to Armstrong Aerospace for the first time.
2. Design revisions have occurred after the first article was accomplished (only partial FAIR required).
3. There has been a lapse in production ≥ 2 years.
4. A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling or materials, has occurred that can potentially affect fit, form or function. See section 19.0.

5. A change in numerical control program or translation to another media that can potentially affect fit, form or function has occurred. See section 19.0.
6. A natural or man-made event has occurred, which may adversely affect the manufacturing process.

23.0 Assembly Configuration Management (Class Applicability: 1)

Armstrong Aerospace Purchasing is responsible for communicating all relevant design data for such configured assemblies.

Assemblies delivered to an Armstrong Aerospace purchase order require configuration management documentation when 1 or more of the assembly's subcomponents are revision-controlled components (i.e: defined by an Armstrong Aerospace drawing). In this case, all subcomponent revision levels shall be documented by the supplier on the relevant CoC or by making reference to a document that certifies those revision levels with each shipment.

24.0 Packaging and Labeling (Class Applicability: 1 and 2)

Suppliers are responsible for packaging all products and materials for shipment in the manner necessary to ensure they arrive at the ship-to location with no damage or in any otherwise defective state.

Products and materials are required to have the primary packaging identified with the following information:

- Part Number and Revision Level
- Quantity
- Armstrong Aerospace Purchase Order Number, PO Revision Level, and Line Item Number
- Expiration Date where applicable
- Supplier Lot Number. This may be a job order number, batch number, etc. This number must provide traceability to the raw material, finishing batch numbers, inspection records, and any other records necessary to demonstrate conformity to the product's requirements.

25.0 Drop Shipments (Class Applicability: 1 and 2)

Armstrong Aerospace Purchasing, or the relevant purchase order, may direct suppliers to drop ship orders to our customers or other 3rd-party locations. When directed to do so, the supplier must send copies of the certificate of conformance, and all first article inspection reports (where

applicable per section 22.0) to the Armstrong Aerospace Director of Quality (copying the appropriate buyer), then await approval or further instructions prior to shipment.

Once approved to ship, forward a copy of the packing list and shipment tracking information to Armstrong Aerospace Purchasing and Finance.

26.0 Production Serialization (Class Applicability: 1)

The supplier is responsible for labeling product and maintaining unique serialization where required by the applicable part drawing. The serial numbering convention used shall comply with the relevant part drawing instructions (usually an identification label part number identified in the assembly parts list). Supplier serialization record shall be furnished upon request. Armstrong Aerospace Purchasing or Quality Assurance may communicate special instructions with regards to initiating serial number (i.e: starting or specially coded serial numbers).

27.0 Planned Obsolescence (Class Applicability: 1 and 2)

As dictated by civil aviation regulations, Armstrong Aerospace is obligated to strictly comply with its design data. To this end, Armstrong Aerospace must be made aware when products and materials are planned to be discontinued in order to make the necessary changes to our design data with ample time to prevent disruption to business.

Therefore, the supplier is responsible for notifying the appropriate Armstrong Aerospace Buyer, within 10 business days, when particular part numbers are planned to be discontinued or otherwise made obsolete. This notification shall be provided, at a minimum, 6 months in advance of the planned obsolescence and is applicable to any part numbers purchased by Armstrong Aerospace in the past 2 years. The supplier is also responsible for flowing this requirement down to their sub-suppliers where appropriate.

28.0 Conflict Mineral Control (Class Applicability: 1 and 2)

Astronics is a publicly held company and is required to perform due diligence to conform to the requirements of the Dodd-Frank Act for Conflict Minerals. Your products may contain one of more of the 3T&G (Tin, Tantalum, Tungsten, and Gold) common to electrical components. An annual survey will be distributed to applicable suppliers, which will be required to be completed by its noted due date. The supplier is expected to perform their due diligence in identifying the products they supply to Armstrong Aerospace that contain any of these minerals, and determine if these minerals used to manufacture those components were sourced from the conflict regions specified in the act.

29.0 Suspected Unapproved Parts (SUP) Programs (Class Applicability: 1 and 2)

Approved parts are defined as: Parts manufactured in complete compliance with an established industry or U.S. Government or international specification that includes design, manufacturing, test and acceptance criteria, and uniform identification requirements (ex: NAS and MIL spec hardware).

Suspected unapproved parts are defined as: A part, component, or material that is suspected of not meeting the requirements of an approved part. A part that, for any reason, a person believes is not approved. Reasons may include findings such as different finish, size, color, improper (or lack of) identification, incomplete or altered paperwork, or any other questionable indication.

Suppliers providing standard parts shall only provide parts where they can demonstrate their lot's traceability to the OEM or their authorized distributors. Suppliers using standards parts as part of any assembly shall only use parts where they can demonstrate the lot's traceability to the OEM or their authorized distributors.

Supplier Acknowledgement

We acknowledge that we have received the ***Astronics Armstrong Aerospace Supplier Quality Requirements Manual,*** and have read and understand the requirements defined within.

We acknowledge that this revision of the ***Astronics Armstrong Aerospace Supplier Quality Requirements Manual*** supersedes and replaces previous revisions of this document that may have been previously distributed.

We understand that I must comply with all provisions of the ***Manual***. We also understand that if we do not comply with all provisions of the ***Manual,*** the result will be dissatisfactory performance that can lead to removal from the Astronics Armstrong Aerospace Approved Vendor List and subsequent discontinuance of business.

By my signature below, I acknowledge, as a representative of my organization, that we understand and intend to comply with all stated requirements.

Supplier Name

Supplier Representative [Print Name]	*Title*	*Signature*	*Date*

Please return this signed page as follows:

Attn: Director of Quality
Astronics Armstrong Aerospace
1437 Harmony Ct.
Itasca, IL 60143
Fax: 630-285-0201

APPENDIX

See forms below

ASTRONICS ARMSTRONG AEROSPACE	Source Inspection Request	Ref.:	F-PUR-103
		Rev.:	2
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Request Date:	
Supplier Name:	
Address:	
Primary Contact:	

Purchase Order Number/Rev/Line Item:	
Part Number(s):	
Quantity:	
Serial Numbers:	

Requestor Signature:			
	(Print Name)	*(Signature)*	*(Date)*

(Completed by Armstrong Aerospace Quality Assurance)
Disposition: Waived: ☐ Accepted: ☐

Armstrong Aerospace QA Approval:			
	(Print Name)	*(Signature)*	*(Date)*

ASTRONICS ARMSTRONG AEROSPACE	Source Inspection Report	Ref.:	F-PUR-104
		Rev.:	3
		Page:	1/1

Inspection Date:	
Source Inspector:	

Part Number:	
Quantity:	
Serial Numbers:	
Purchase Order Number/Rev/Line Item:	

(Completed by Armstrong Aerospace Quality Assurance)		
Source Inspection Results:	Accept: ☐	Reject: ☐

Discrepancy	Corrective Action	Corrected By	Approval (Completed AA QC)

Armstrong Aerospace Lot Number:	

Armstrong Aerospace QC Inspector:			
	(Print Name)	*(Signature)*	*(Date)*

ASTRONICS ARMSTRONG AEROSPACE	**Supplier Design Change Request**	Ref.:	**F-PUR-105**
		Rev.:	**2**
		Page:	**1/1**

Supplier:	
Supplier Representative (Name & Title):	
Drawing Number:	
Current Revision Level:	

Deviations *(Use Is/Should-Be Format)*	**Sheet No./ Zone No.**	**Requested Change**	**Armstrong QA Disposition**
			ACC/REJ
			ACC/REJ
			ACC/REJ
			ACC/REJ
			ACC/REJ
			ACC/REJ
			ACC/REJ
			ACC/REJ
			ACC/REJ
			ACC/REJ

Armstrong Aerospace Engineering Comments:

ECO/ACN Number (Internal Use Only):	

Armstrong Aerospace Engineering Approval			
Name (Print)	*Signature*	*Title*	*Date*

ASTRONICS ARMSTRONG AEROSPACE	Supplier Deviation Request	Ref.:	F-PUR-106
		Rev.:	2
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Supplier:	
Supplier Representative (Name & Title):	
Part Number:	
Current Revision Level:	
Lot No(s)./Serial Number(s) Affected:	
Quantity Affected:	
AA Purchase Order Affected:	

Deviations *(Use Is/Should-Be Format)*	**Sheet No./ Zone No.**	**Armstrong QA Disposition**
		ACC/REJ
		ACC/REJ
		ACC/REJ
		ACC/REJ
		ACC/REJ

Armstrong Aerospace QA Comments:

Supplier (Requestor)			
Name (Print)	*Signature*	*Title*	*Date*

Armstrong Aerospace Quality Assurance			
Name (Print)	*Signature*	*Title*	*Date*
Quantity or Serial Numbers(s)/Lot Numbers Approved:			

ASTRONICS ARMSTRONG AEROSPACE	Supplier Corrective Action Request	SCAR#:	1.	
		Rev.:	2.	-
		Original Author:	3.	
		Page:	4.	1/4

Problem Statement and Details:

5.	Date Opened:	
6.	Part Number:	
7.	Part Description:	
8.	Serial#(s):	
9.	Quantity Defective:	
10.	Supplier:	
11.	Supplier Contact:	
12.	Issued By:	
13.	Problem Statement:	
14.	Corrective Action Plan Due Date:	

Team:

15.	Team Leader:	Identify your team leader here.
16.	Team Members:	Identify your team members here.

Containment Action:

17.	Containment Action:	Report the short-term corrective action taken to contain the defect. This should include accounting and action taken for all affected areas in your production pipeline (i.e: receiving inspection, WIP, out for secondary operations, at Armstrong Aerospace, etc.).
18.	Containment Date:	The date containment action was taken is recorded here.

Root Cause Analysis:

Occurrence

19.	Why?-1:	Record the root cause analysis, in 5-why format, for why the error occurred.
	Why?-2:	Record the root cause analysis, in 5-why format, for why the error occurred.
	Why?-3:	Record the root cause analysis, in 5-why format, for why the error occurred.
	Why?-4:	Record the root cause analysis, in 5-why format, for why the error occurred.
	Why?-5:	Record the root cause analysis, in 5-why format, for why the error occurred.
20.	Summary:	Summarize the investigation and how one arrived at the root cause (i.e: record reviews, etc.).

Detection

21.	Why?-1:	Record the root cause analysis, in 5-why format, for why the error was not detected.
	Why?-2:	Record the root cause analysis, in 5-why format, for why the error was not detected.
	Why?-3:	Record the root cause analysis, in 5-why format, for why the error was not detected.
	Why?-4:	Record the root cause analysis, in 5-why format, for why the error was not detected.
	Why?-5:	Record the root cause analysis, in 5-why format, for why the error was not detected.
22.	Summary:	Summarize the investigation and how one arrived at the root cause (i.e: record reviews, etc.).

Corrective Action Plan:

Occurrence

23.	**Corrective Action:**	Document the plan for ensuring this defect will not recur again.
24.	**Implementation Date:**	Document the date the plan was implemented or will be implemented.

Detection

25.	**Corrective Action:**	Document the plan for ensuring this defect will be detected and contained if the corrective action plan above fails.
26.	**Implementation Date:**	Document the date the plan was implemented or will be implemented.

Verification:

27.	**Verification Plan:**	Document the plan for verifying the corrective action plans have been executed and are effective.
28.	**Verification Results:**	Document the results of the verification that the corrective action plans have been implemented and whether or not they were effective at mitigating or preventing the defect.
29.	**Verification Date:**	Document the date the plan was verified or when verification will be completed.

Control:

Occurrence

30.	**Control Plan:**	Document how the corrective action plan for Occurrence will be made permanent and continually sustained (i.e: revisions to work instructions, job travelers, etc.).
31.	**Implementation Date:**	Document the date the plan was implemented or will be implemented.

Detection

32.	**Control Plan:**	Document how the corrective action plan for Detection will be made permanent and continually sustained (i.e: revisions to work instructions, job travelers, inspection checklists etc.).
33.	**Implementation Date:**	Document the date the plan was implemented or will be implemented.

Preventive Action:

34.	**Preventive Action Plan:**	Document how this corrective action plan will be applied to or will affect other products where the potential for the same defect is likely.
35.	**Implementation Date:**	Document the date the plan was implemented or will be implemented.

Evidence:

Attached Evidence: (i.e: sample routers, updated work instructions, training records, etc.)

Completed By: **36.** _____ **37.** _____

(Signature) *(Date)*

38.	**Date Closed:**	