PURPOSE

This specification outlines the requirements for Supplier's Quality Management System ***(QMS)***. Supplier must comply with ISO 9001 / AS9100 requirements. Additional requirements outlined herein are to compliment ISO 9001 / AS9100 ***/ AS9110*** requirements. http://www.sae.org

APPLICATION

If the requirements of this specification conflict with ISO 9001 / AS9100 ***/ AS9110*** requirements, ISO 9001 / AS9100 ***/ AS9110*** requirements shall govern. Any apparent contradiction, inconsistency or ambiguity shall be resolved promptly with Buyer's Supply Chain Organization. All resolutions of this nature shall be contractually documented.

If, because of special circumstances, Seller takes exception to any of the requirements of this specification, Seller shall so state in his quotation and provide the reasons for requesting exception. Buyer reserves the right to approve or deny requested exceptions, i.e. Design and Development requirements.

DEFINITIONS

Article: A general term applicable to supplies, raw material, other material, parts, assemblies, subassemblies, systems, subsystems, equipment or services.

Buyer: Sabreliner Aviation, LLC.

Change Order: Any contractual order that effects a change, revision, deletion or addition to an existing document.

Characteristic: Any dimensional, visual, functional, mechanical, electrical, chemical, physical or material feature or property and any process-control element that describes and establishes the design, fabrication and operating requirements.

Corrective Action: Those measures taken to alter conditions or circumstances that is conducive to the generation of nonconformances. The intent of such measures is to preclude recurrence of nonconformance.

Device: A piece of equipment or mechanism designed to serve a special purpose or perform a special function.

First Article Inspection (FAI): An inspection performed on a representative sample of the first production run part that will provide evidence that all engineering, design and specification requirements are correctly understood, accounted for, verified and recorded. Reference AS9102 .

Inspection: The examination of articles, which may include testing, to determine

conformance to the requirements of the PO, related specifications and drawings.

Instruction: A document to provide supplemental information and/or instructions for the accomplishment of specific tasks, such as inspection checklists, acceptance test procedures, form instructions, etc.

Media of Inspection: Any device used to assist in determining conformance of articles to requirements.

Nonconforming Articles: Articles which do not conform to the requirements of the PO and related specifications or drawings.

Notice of Quality Escapement: Products or articles that have been released from the Sellers quality system that do not conform to the applicable design data or quality system requirements.

Purchase Order: Buyer's contractual document containing terms and conditions of an order for articles to be provided to Buyer by Seller, including all related documents appended to or referenced therein.

Raw Material: Material such as forgings, casting, plate stock, wire, etc. which ultimately becomes part of or has influence on the acceptability of a deliverable product.

Seller: The Company furnishing articles purchased by Buyer.

Special Process: A process performed on articles for which conformance to requirements cannot be determined through inspection of the processed articles without destructive testing. Typical special processes are: coating, plating, soldering, heat treatment, etc. This designation includes selected inspection / test methods used to evaluate article conformance to design and quality requirements including but not limited to, penetrant / magnetic particle / ultrasonic / eddy current / radiographic inspection and leak detection; chemical / physical / mechanical properties testing and salt spray / stress corrosion testing.

RESPONSIBILITIES

Buyer Assistance to Seller: Upon request from Seller and at the option of Buyer, assistance may be provided to the Seller in fulfilling the requirements of this specification.

Quality Audits by Buyer: Seller shall permit Buyer to conduct audits of Seller's quality system to evaluate the degree of compliance with ISO 9001 / AS9100 and/or contractual requirements. Seller shall make available to Buyer during audits a copy of each specification, procedure, record or special requirement deemed by Buyer to be necessary for proper evaluation. Buyer may use one or more requirement specific assessment checklist during the audits to determine compliance.

Inspection by Buyer at Seller's Facility: Buyer and Buyer's customers shall have the right to visit Seller's facility to witness and/or perform inspection and tests on articles related to Buyer's Purchase Orders (PO) and determine the acceptability of such articles. This right

shall also extend to Seller's source of supply. Buyer shall also have the right to maintain continuous article inspection at Seller's facility. Any contact by Buyer with Seller's sources of supply must be coordinated through Seller.

- Seller's inspection and test equipment, quality records and necessary personnel shall be made available to Buyer for use at Seller's facility to determine conformity of articles to contractual requirements.
- Buyer's inspection and/or test at Seller's facility does not guarantee acceptance at destination nor does it relieve Seller of responsibility for the acceptability of contracted articles.
- All inspection referred to will be coordinated through, or by authority of, Buyer's Purchasing Department.

Buyer Furnished Property (BFP): When article(s) are furnished by Buyer to Seller in support of Buyer's PO, Seller shall maintain a system for the inspection, protection and control of such article(s). If BFP is found damaged, malfunctioning or otherwise unsuitable for use, Seller shall immediately report such conditions to Buyer. Seller shall protect deficient BFP to prevent further damage or additional repair costs.

- In the event that furnished property belongs to Buyer's customer, the Buyer's customer's requirements for control of property shall govern. These requirements will be flowed via PO.

Control of Supplies and Sub-tier Suppliers: Seller is responsible for ensuring that all articles procured which will form a part of deliverable articles conform to all specified requirements. Applicable requirements of this specification shall be invoked on Seller's suppliers via Seller's PO.

PROCE*SS*

1. **Record Retention:** Quality records shall be retained for a period of seven years from contract termination, or as required by PO, which ever period is longer, and shall be made available to Buyer for review.
2. **Change Restriction:** Any document provide to Seller by Buyer shall not be changed without documented contractual authorization by Buyer.
3. **Changes:** Seller shall maintain a documented change control system which will ensure definition of an effectivity point for each requirement change. This system shall apply to all changes that affect articles or their conditions of acceptance, preservation, packing, or any other phase of performance. Records of all inspections shall reflect the revision level used for acceptance criteria. Upon receipt of a change, Seller will be responsible for the immediate removal of obsolete documents from all points of issue or use. Seller shall also assure that all documents generated in support of the changed document (checklists, test procedures, etc.) be

promptly reviewed and necessary changes made. All devises for inspection, test, or production shall be promptly modified to incorporate the effect of the change.

4. Notification from Seller to Buyer

4.1. ***Quality System Status***

4.1.1. Seller shall establish a method to notify Buyer, in writing, within 5 working days of the following:

4.1.1.1. Any adverse change in Seller's quality system status resulting in the loss of 3rd Party Registrar's certification status, or of any significant action taken by Seller's customer, the U.S. Government, Federal Aviation Agency (FAA).

4.1.1.2. Any transfer of manufacturing operations or upon any change in the quality organization, process or procedures that could affect conformity verification of articles. Including changes of sub-tier manufactures' and processors'.

4.1.2. Seller shall establish a method to notify Buyer, in writing, within 60 calendar days prior to any sale, relocation or name change of the Seller's organization.

4.2. ***NADCAP / Non-Destructive Testing (NDT) Status***

4.2.1. Seller shall establish a method to notify Buyer, in writing, within 48 hours of any changes in Nadcap accreditation and/or changes to Level II or III Non-Destructive Testing (NDT) personnel.

5. Special Processes: Seller shall maintain a documented control system to assure special processes are performed in adequate facilities by qualified personnel and that full compliance with the requirements for governing specifications is achieved. This system shall provide for definitive, written procedures for the accomplishment of special processes which shall be available in areas of performance. As applicable, Seller shall provide adequate training and certification of personnel and equipment for the performance of special processes.

6. Subcontracted Special Processes: Seller shall impose the requirements of above paragraph on all suppliers performing special processes on deliverable articles.

7. Supplier Selection: The selection of sources and the nature and extent of control shall be based on and adjusted accordingly to the nature of procured articles, the quality evidence furnished by the supplier and the supplier's demonstrated ability to perform the required tasks.

8. Article Inspection/Test: All articles must be inspected and/or tested by Seller, as necessary to assure full compliance with requirements prior to presentation for Buyer's acceptance. The fact that inspections and/or tests may be performed by Buyer does not relieve Seller of this responsibility.

9. **In-Process Inspection and Test:** Seller shall identify inspection and test points throughout the entire course of fabrication and assembly. Inspection and test points shall be planned at appropriate stages to verify compliance of characteristics and parameters that cannot be readily examined after subsequent assembly.
10. **Final Inspection and Test:** Seller shall assure that final inspection and test verified compliance with all requirements specified by Buyer as well as Seller's internal requirements. Documented evidence of acceptance through prior examinations is acceptable verification.
11. **First Article Inspection:** When invoked on PO via Quality Condition Code 21, Seller shall perform a First Article Inspection per AS9102 .
12. **Disposition Authority:** Disposition authority is not granted to Seller for any nonconformance which departs from the requirements of drawings, specifications or any other description imposed by the Buyer. Departures from Seller requirements which are not controlled by Buyer may be dispositioned by Seller appointed Quality Control and Engineering personnel. Notwithstanding the above, Seller dispositions shall not encompass an adverse effect on article operation, performance, safety, reliability, interchangeability, replaceability, weight, or appearance when appearance is a factor. Nonconformances which depart from Buyer controlled requirements must be submitted to Buyer in writing for disposition prior to presentation for acceptance.
13. **Corrective Action:** Seller shall take prompt action to detect and correct conditions which have resulted, or could result, in the production of nonconforming articles. Seller's corrective action system shall cover all phases of their quality system activities from material procurement through delivery of articles to Buyer and shall include corrective action with Seller's suppliers. Seller shall respond to Buyer's request for corrective action to eliminate the cause of nonconformities in order to prevent their recurrence. When responding, the Seller shall also provide objective evidence of the completed analytical tools utilized to determine the Root Cause(s) of the nonconformity. Seller shall establish and expedite any necessary coordination with the article manufacturer when Buyer's requests for corrective action concerning non-conformances for which the manufacturer is responsible. Failure to provide an acceptable Root Cause Corrective Action (RCCA) by the assigned due date could result in further Corrective Actions being initiated and or removal from Sabreliner Aviation, LLC Approved Supplier List.
14. **Repair or Rework by Seller:** Repair or rework not specified in the manufacturer's technical data shall be performed only in accordance with Buyer's written instructions.
15. **Control of Tooling, Test and Measuring Equipment:** All media of inspection or test shall be checked for accuracy prior to initial use and at regular intervals.
16. **Identification:** Seller shall require that users of devices included in the calibration system share in the responsibility for the nonuse of such devices past their calibration due date. So that this responsibility can be discharged, all calibrated devices shall bear identification indicating the date of the last calibration and the date next calibration is due. When size or other

characteristics do not allow display of calibration information, it may appear on the device container, an attached tag or other suitable means to assure adherence to calibration schedules.

17. **Calibration Standards:** Seller's standards used to verify accuracy of working equipment shall be controlled and protected. They shall be used for calibration purposes only and shall be periodically recertified to maintain a valid relationship to national standards or to physical constants.
18. **Outside Calibration Services:** Seller may elect to satisfy calibration requirements by the use of outside laboratories. Such laboratories must document to Seller the standards used to accomplish calibration and evidence of their valid relationship to national standards or physical constants.
19. **Tolerance Interpretation:** Specified limits and tolerances are considered to be absolute. Measurements shall not be "rounded off" to meet requirements. This interpretation shall apply equally to mechanical measurements and electrical values.
20. **Notice of Quality Escapement:** Seller is responsible to report to the Buyer all quality escapements discovered that affect products/articles release from Sellers quality system. Notice of escapement report is to reflect: dates discrepant product were produced, dates parts were sold to Buyer; discrepant part number; description of discrepancy; how the discrepancy was identified; total number of products/articles shipped/sold; cause of discrepancy; actions taken. Notice of quality escapements may result in the issuance of a request for Corrective Action in accordance with section 13 noted above.

REFERENCES

AS9100	Aerospace Standard – Requirements for Aviation, Space & Defense Organization
AS9101	Aerospace Standard – Audit Requirements for Aviation, Space & Defense Organization
AS9102	Aerospace Standard - First Article Inspection Requirements for Aviation, Space & Defense Organization
AS9110	Aerospace Standard – Requirements for Aviation Maintenance Organization
QA-INST-42	Supplier Quality Condition Codes
QA-INST-99	Customer Communication of Quality System Changes
SP-PROC 8.3.D	Notice of Escape Process

FORMS

SQ-INST-42A-001	ISO 9001 / AS9100 Audit Checklist
SQ-INST-42A-002	First Article Inspection Checklist
SQ-INST-42A-003	Contract Review

SQ-INST-42A-004	Subcontractor Controls
SQ-INST-42A-005	Supplier Root Cause Corrective Action Checklist
SQ-INST-42A-006	Supplier Tooling Checklist

REVISION HISTORY

Rev Level	***Date***	***Comments***	***Revised by***
0	03/20/2014	Baselined to reflect Company Name Change	James Miller

Figure 1 SQ-INST-42A-001 ISO 9001 / AS9100 ***Audit*** Checklist

Clause #	Description	Organization Procedure #	Rev. & Date	Adequate Yes / No	Compliant Yes / No	Remarks / Comments
4.1	**General Requirement**					
	Has the organization established, documented, implemented, maintained and continually improved a QMS					
	Does the organization: a) Identified the processes needed for the QMS?					
	b) Determined the sequence and interaction of these processes?					
	c) Determined criteria and methods required to ensure effective operation and contr of the identified processes;					
	d) Ensure availability of resources and information required to support the operation and monitoring of processes					
	e) measure, monitor and analyze the processes and;					
	f) implement action to achieve planned results and continual improvement					

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SQ-INST-42.A-001 11/12/2010

Figure 2 SQ-INST-42A-002 First Article Inspection ***Checklist***

First Article Inspection (FAI) Process Review

Supplier:	Auditor:		Date:	
Category	Requirement	Yes	No	C/A
1. Is the Supplier contractually required to perform an FAI per AS9102?	Purchasing Documents			
2. Does the Supplier have a copy of AS9102?	AS9100 4.2.4 AS9100 7.2.2			
3. Does the Supplier's FAI process clearly define when an FAI is required?	AS9100 8.2.4.2 AS9102 5.1			
4. Does the Supplier's FAI process require FAI to be performed on a part that is representative of the *first production run*?	AS9100 8.2.4.2 AS9102 5.1			
5. If an FAI is not performed on first production run, does the Supplier manage the risk of liability on parts produced until an FAI is completed?	AS9100 8.2.4			
6. Does the Supplier have documented instructions for t[illegible] Forms?				
7. Does the Sup[illegible] personnel trainin[illegible]				
8. When an FAI [illegible] performed on ide[illegible] similar characteristics or similar parts produced by identical means, is the approved configuration identified in the index of part numbers?				
9. Do the FAI Forms include the following part accountability information:				
a) Part number / part name				
b) Serial number (if applicable)				
c) Part revision level				
d) Engineering drawing number (or design media) and drawing revision level (including EO Sequence)				
e) Additional changes - changes incorporated in product but not reflected in drawing / part revision level (e.g. design, engineering, manufacturing changes , SMI, SPECO, etc.)	AS9102 5.3			
f) Manufacturing process reference including revision				
g) Organization name				
h) Organization CAGE Code / vendor number				
i) Purchase order / contract number including revision				
j) Detail or Assembly Part				

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Figure 3 SQ-INST-42A-003 Contract Review

Contract Review

Supplier:	Auditor:		Date:	
Category	Requirement	Yes	No	C/A
1. Does the supplier have documented contract review process for the determination and review of requirements related to the product?				
2. Do supplier personnel performing contract review/determination and review of requirements related to product exhibit levels of competence, awareness and training appropriate to effectively perform the associated activities?	AS9100 6.2.2			
3. Does the supplier determine:				
* Requirements specified by the customer, including the re post-delivery a				
* Requirements but necessary where known				
* Statutory and related to the product				
* Any additional requirements determined by the organization				
4. Does the supplier review requirements related to the product - C&P Flysheets -SPECO flowdowns - Technical requirements	AS9100 7.2.2			
5. Does the supplier maintain adequate resources with access rights to tech data packages including changes to requirements?				
6. Is the review conducted prior to the supplier's commitment to supply a product to the customer (e.g. submission of tenders, acceptance of contracts or orders, acceptance of change orders) and does it ensure that:				
* Product requirements are defined?	AS9100 7.2.2			
* Contract or order requirements differing from those previously expressed are resolved?				
* Risks (e.g. new technology, short delivery time scale) have been evaluated?				

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Figure 4 SQ-INST-42A-004 Subcontractor Controls

Subcontractor Controls

Supplier:	Auditor:		Date:	
Category	Requirement	Yes	No	C/A
1. Does the supplier determine and review requirements related to Sabreliner product / technical requirements for flowdown to the supply chain? (Cross functional teams for design / manufacturing engineer, quality, material / processing engineer, etc.)	AS9100 7.2.1, 7.4.2			
2. Does the supplier clearly identify and communicate requirements internally and externally throughout the supply chain? (e.g. technical requirements, make / buy strategy)	AS9100 7.4.2			
3. Does the supplier's procurement process capture and flow customer and supplier requirements pri Purchase Contra - Request for pro - Mandatory qual engineering requ commodity - Acceptance criteria - Configuration / Revision Level - FAR/DFAR (e.g. specialty metals)				
4. Is the subcontract management process maintained for the transfer for inter-divisional work? - Formal program management notification and oversight	AS9100 7.5.1.4			
5. Is there a process for two-way control and communication of design / configuration changes and Effectivity? - Configuration management control over sub-tiers - Approved planning (pre and post award) - Wavier / deviation	AS9100 7.4.2			
6. Do the supplier's processes and or procedures address limitations on design change authority?	AS9100 7.3.7			
7. Are First Article Inspection (FAI) requirements flowed to subcontractors and does the supplier verify the subcontractors FAI prior to receiving parts/assembly?	AS9100 7.4.2, 8.2.4.2			
8. Are FAIs repeated as applicable for new parts and parts manufactured for the first	AS9100 8.2.4.2			

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Figure 5 SQ-INST-42A-005 Supplier Root Cause Corrective Action Checklist

Supplier Root Cause Corrective Action (RCCA)

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Supplier:	Auditor:		Date:	
Category	Requirement	Yes	No	C/A
1. Does the supplier have documented procedures for RCCA processes?	AS9100 8.5.2			
2. Do the supplier's procedures require the review of nonconformities including customer complaints?	AS9100 8.5.2(a)			
3. Do the supplier's procedure require they determine the cause of nonconformities?	AS9100 8.5.2(b)			
4. Do the supplier's procedure define when the RCCA process is to be initiated? Customer rejection, internal audits, insp?	AS9100 8.5.2			
5. Do the supplier's procedures document RCCA training for the personnel performing RCCS?	AS9100 8.2.2			
6. Do the supplie the results of RC				
7. Do the supplie evaluation of the the action required to ensure that the nonconformance does not recur?				
8. Does the supplier's RCCA procedure address possible actions multiple root cause solutions?	Best Practice			
9. Do the supplier's define implementing corrective actions from the RCCA?	AS9100 8.5.2(d)			
10. Are key personnel and/or departments identified for responsibility within the RCCA process?	AS9100 6.1			
11. Do the supplier's procedures include the use of analysis tools, to determine the causes of nonconformities?	AS9100 8.4			
12. Do the supplier's procedures require the following elements for effective RCCA?	Best Practice			
a) documented problem statement	Best Practice			
b) documented containment plan with Effectivity date	Best Practice			
c) documented root cause analysis	Best Practice			
d) documented root cause statement	Best Practice			
e) documented root cause action plan including Effectivity dates	Best Practice			
f) documented root cause corrective action verification plan and implementation dates	Best Practice			
g) documented root cause corrective action follow-up	Best Practice			
13. Do the supplier's procedures require reviewing and validating the corrective actions taken for effectiveness?	AS9100 8.5.2(f)			

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SQ-INST-42.A-005

Figure 6 SQ-INST-42A-006 Supplier Tooling Compliance Checklist

SUPPLIER TOOLING CHECKLIST

Quality Management System	**Reference(s)**	**YES**	**NO**	**N/A**	**C/A**
1. Does the Seller have documented procedures for Special Tooling (ST) receiving, acceptance, storage, control, use, maintenance, and shipping?	AS9100 6.2.1; 6.2.2; 7.5.1.3 **SP-PROC 7.5.1.J**	☐	☐	☐	☐
2. Does the Seller have documented procedures for the following Special Tooling (ST) capabilities as applicable:	AS9100 6.2.1; 6.2.2;				
a. Definition / Design	**SP-PROC 7.5.1.E Para. 2**	☐	☐	☐	☐
b. Fabrication, Rework and Modification	**SP-PROC 7.5.1.E Para. 10**	☐	☐	☐	☐
c. Acceptance	**SP-PROC 7.5.1.E Para. 11 & 13**	☐	☐	☐	☐
d. Maintenance	**SP-PROC 7.5.1.J**	☐	☐	☐	☐
Documentation R					
3. Does the Seller address initial, r Periodic Tool Inspection (PTI) history of Special Tooling (ST)?	**SP-PROC 4.2.4 P & P #604**	☐	☐	☐	☐
4. Do the Seller's Special Tool (ST) records for fabrication, rework, modification, validation, acceptance, or periodic tool inspection reference the following:	AS9100 4.2.4				
a. Identification	**Form 1061, Manufacturing Order**	☐	☐	☐	☐
b. Definition	**Form 1061, Manufacturing Order**	☐	☐	☐	☐
c. Feature, dimension, and process inspection results	**Form 1061**	☐	☐	☐	☐
d. Fabrication, rework, and modification/configuration history, which must include relevant authority documentation	**Form 1061**	☐	☐	☐	☐
e. Inspection/release status	**Form 1061**	☐	☐	☐	☐

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	Reference(s)	**YES**	**NO**	**N/A**	**C/A**

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