



Aero Hardware & Supply, Inc.

Quality Manual

**4301 N.W. 36th Street
Miami Springs, FL 33166**

**Phone (305) 883-8424 Fax (305) 883-6179
www.aerohardware.com**

Introduction

Aero Hardware & Supply, Inc. developed and implemented a Quality Management System in order to document the company's best business practices, better satisfy the requirements and expectations of its customers and improve the overall management of the company.

The Quality Management System of Aero Hardware & Supply, Inc. meets the requirements of the international standards ISO 9001:2000 & AS9100B. This system addresses the design, development, production, installation, and servicing of the company's products.

The manual is divided into eight sections that correlate to the Quality Management System sections of AS9100B. Each section begins with a policy statement expressing Aero Hardware & Supply, Inc.'s obligation to implement the basic requirements of the referenced Quality Management System section. Each policy statement is followed by specific information pertaining to the procedures that describe the methods used to implement the necessary requirements.

This manual describes the Quality Management System, delineates authorities, inter relationships and responsibilities of the personnel responsible for performing within the system. The manual also provides procedures or references for all activities comprising the Quality Management System to ensure compliance to the necessary requirements of the standard.

This manual is used internally to guide the company's employees through the various requirements of the AS9100B standard that must be met and maintained in order to ensure customer satisfaction, continuous improvement and provide the necessary instructions that create an empowered work force.

This manual is used externally to introduce our Quality Management System to our customers and other external organizations or individuals. The manual is used to familiarize them with the controls that have been implemented and to assure them that the integrity of the Quality Management System is maintained and focused on customer satisfaction and continuous improvement.

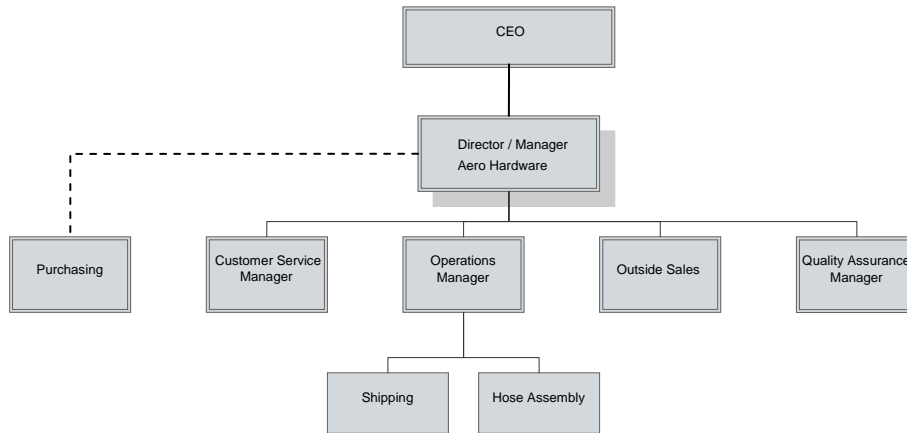
CEO: 

James H. Inglis

Quality Manual Distribution

The Quality Manual shall be distributed as follows:

The quality manual and all system documentation will be distributed and maintained electronically on the company server. All employees that may have an impact on quality have access to this information through the computer network. Aero Hardware & Supply, Inc does not utilize a paper copy distribution system. The document control coordinator will maintain a paper copy of initial document releases and all subsequent revisions.

 **Aero Hardware & Supply, Inc.**

Updated: May 13, 2008

Page 1

Section 1: Scope

1.1 General

The quality manual outlines the policies, procedures and requirements of the Quality Management System. The system is structured to comply with the conditions set forth in the International Standard ISO 9001:2000/AS9100B, Eaton Aerospace QAP 19.1J004, FAR-145, and EASA-145.

SCOPE OF REGISTRATION: "The manufacture and distribution of OEM and custom hose assemblies, and the distribution of fluid conveyance products to the aerospace and defense industries."

1.2 Application

Aero Hardware & Supply, Inc. has determined that the following requirements are not applicable to the operations at this site and are documented as exclusions:

- Requirement 7.3 Design and Development is excluded because the products assembled are done per original equipment manufacturers specifications. Further, Aero Hardware does not control product design as all changes must be submitted to the OEM for approval.
- Requirement 7.5.1.5 Control of Service Operations is excluded because the repairs are limited to the repair of product in-house as per FAA/EASA approvals and OEM specifications.
- Requirement 7.5.2 Validation of Processes for Production and Service Provision is excluded because Aero Hardware & Supply does not have any special processes.
- Other specific exclusions of the requirements of AS9100B sub-clauses that are not applicable to the products and/or the Quality System of Aero Hardware & Supply are identified in the respective sub-sections of this manual.

1.3 Outsourced Processes

- Oxygen cleaning of product - process is controlled via verification of test reports and supplier audits.

Company Overview:

Aero Hardware & Supply, Inc. is the world's Premier Distributor of Aeroquip® Aerospace brand products. Aeroquip® Aerospace brand products, manufactured by the Conveyance Systems Division of Eaton Aerospace, is well known as the leading manufacturer of high quality products such as hose assemblies, quick disconnect hydraulic couplings, clamps, flanges, fittings and seals designed to meet the demanding requirements of the aerospace and defense industries

Having worked continuously with Aeroquip® brand products since 1947 as their first distributor, we have an expertise and dedication that cannot be duplicated. Our capabilities allow us to be competitive in the airline, OEM, MRO, and defense markets.

We offer our customers an entire team of Aeroquip® Product Specialists:

- Our Sales Team will help you find solutions
- Our Production Team is unchallenged as the most capable in the industry
- Our knowledgeable and experienced Quality Assurance Staff ensures product excellence
- Our management team is committed to meeting the AS9100 quality standards and all applicable regulatory requirements.

Our entire service package is available 24 hours a day, 7 days a week via our AOG/emergency service option by calling (800) 633-3997.

Our Cage Code is 7G414

Our EASA number is EASA.145.5910

Our FAA Repair Station Certificate Number is KE4R307M

Section 2: Normative Reference

2.0 Quality Management System References

The following documents were used as reference during the preparation of the Quality Management System:

- American National Standard ANSI/ISO/ASQ Q9000-2000, Quality Management Systems - Vocabulary.
- American National Standard ANSI/ISO/ASQ Q9001-2000, Quality Management Systems – Requirements
- American National Standard ANSI/ISO/ASQ Q9004-2000, Quality Management Systems – Guidelines for performance Improvements
- SAE AS9100 Revision B
- SAE AS9101 Revision C
- SAE AS9102 Revision A
- Eaton Aerospace Conveyance Systems Division QAP 19.1J004 Revision K
- FAR Part 145
- EASA Part 145
- ISO 10007:2003 (E) Quality management systems – Guidelines for configuration management

Section 3: Definitions

3.0 Quality Management System Definitions

This section is for definitions unique to Aero Hardware & Supply, Inc.

- Customer owned property - Any type of instrumentation, accessories, manuals, or shipping containers and any intellectual property that belongs to a customer.
- Customer supplied product - Any type of service or material supplied to be utilized in the manufacture, modification or repair of customer-owned property.
- Product – The end item result of meeting all contract terms and conditions. (eg: manufactured goods, merchandise, services etc.)
- Quality Records – Documentation of those activities wherein records of said activities must be maintained will be specified in the procedure or work instruction level documents, as applicable.
- Other specific definitions are stated within the applicable procedures.

Section 4: General Requirements

4.1 General requirements

Aero Hardware & Supply, Inc. has established, documented and implemented a Quality Management System (QMS) in accordance with the requirements of ISO 9001:2000 and AS9100B. The system is maintained and continually improved through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive action and management review.

To design and implement the QMS Aero Hardware & Supply, Inc. has:

- Identified the processes needed for the QMS and their application throughout the organization and documented them on the Process Flow Diagram at the end of this section of the Quality Manual
- Determined the sequence and interaction of these processes, and illustrated them on the Process Flow Diagram
- Determined criteria and methods needed to ensure that the operation and control of the processes are effective, and documented them through internal audits, management review, and the goal tracker.
- Ensured the continuing availability of resources and information necessary to achieve planned results and continual improvement of these processes
- Established systems to monitor, measure and analyze these processes
- Established processes to identify and implement actions necessary to achieve planned results and continual improvement of these processes

4.2 Documentation Requirements

4.2.1 General

The QMS documentation includes:

- A documented Quality Policy ([P-501](#))
- This Quality Manual ([QM-01](#))
- Documented Procedures ([F-423-01](#))
- Documents identified as needed for the effective planning, operation and control of our processes
- Quality Records ([F-424-01](#))
- FAA Repair Station Manual, Training Manual, and Capabilities Manual ([F-423-05](#))
- EASA Supplement ([F-423-05](#))

4.2.2 Quality manual

This Quality Manual has been prepared to describe Aero Hardware & Supply, Inc.'s QMS. The scope and permissible exclusions of the QMS are described in section one of this manual. Each section of the manual references documented QMS procedures relating to the requirements

outlined in that section. Thus, the relationship between the requirements of AS9100B and the referenced procedures is clearly evident. The Process Flow Diagram at the end of section 4 provides a description of the interaction between the processes of the QMS system.

4.2.3 Control of documents

All of the QMS documents are controlled according to the Document Control Procedure ([P-423](#)). This procedure defines the process for:

- Approving documents for adequacy prior to issue
- Reviewing and updating as necessary and re-approving documents
- Ensuring that changes and current revision status of documents are identified
- Ensuring that relevant versions of applicable documents are available at points of use
- Ensuring that documents remain legible and readily identifiable
- Ensuring that documents of external origin are identified and their distribution controlled
- Verifying that documents of external origin are periodically verified for currency
- Preventing the unintended use of obsolete documents and to apply suitable identification to them if they are retained for any purpose
- Coordinating document changes with customers and/or regulatory authorities if and when required by contract or other applicable regulatory requirements
- Quality system documents are made available to the customers and regulatory authorities when requested.

4.2.4 Control of quality records

Quality records are maintained to provide evidence of conformity to requirements and of the effective operation of the QMS. The records are maintained according to the Control of Quality Records Procedure ([P-424](#)). This procedure requires that quality records remain legible, readily identifiable and retrievable. The procedure defines the controls needed for identification, storage, protection, retrieval, retention time and disposition of quality records. In addition, the procedure also describes the control applied to the records created and retained by the suppliers. It is our company's policy to make relevant records available for review when requested by our customers and regulatory authorities.

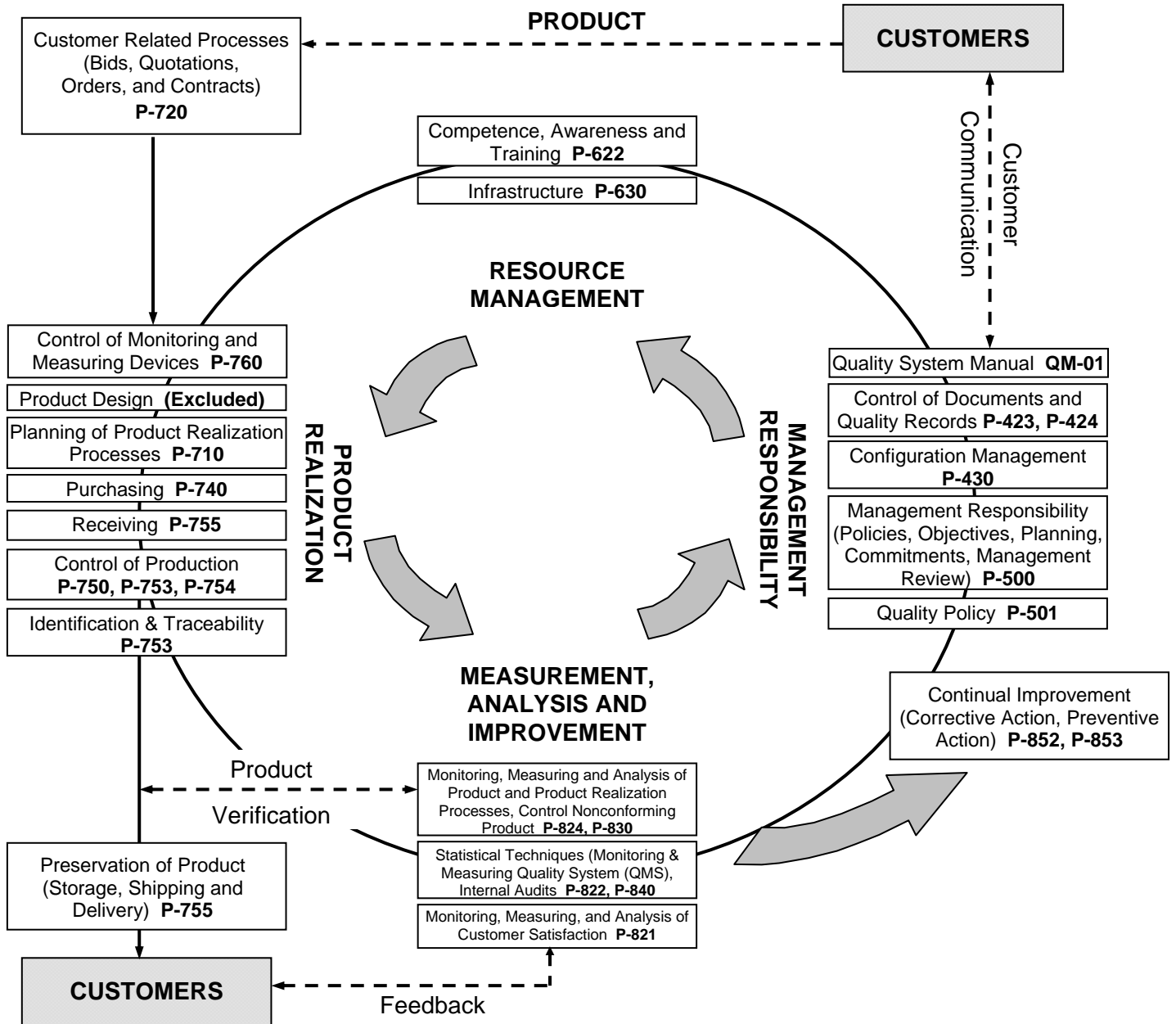
4.3 Configuration Management:

Aero Hardware maintains the configuration of the products throughout the product life cycle in accordance with the documented procedure [P-430](#). Controlled and configurable items include documents, programs, processes and hardware associated with the products. Process for the identification & traceability of products is described in section 7.5.3 of this manual.

Related Procedures

Document Control	P-423
Control of Quality Records	P-424
Configuration Management	P-430

TOP-LEVEL QUALITY MANAGEMENT SYSTEM OVERVIEW



Section 5: Management Responsibility

5.1 Management commitment

Senior Management has been actively involved in implementing the quality management system (QMS). It has provided the vision and strategic direction for the growth of the QMS, and established quality objectives and the quality policy.

To continue to provide leadership and show commitment to the improvement of the QMS, management will do the following:

- Communicate the importance of meeting customer, statutory, and regulatory requirements.
- Establish the quality policy.
- Establish quality objectives.
- Conduct periodic management reviews.
- Ensure the availability of resources.
- Establish authorities within an authority matrix ([F-500-04](#)).

5.2 Customer focus

Aero Hardware & Supply Inc. strives to identify current and future customer needs, to meet customer requirements and exceed customer expectations.

Senior management ensures that customer requirements are understood and met, by requiring compliance with documented customer communication procedures. Customer requirements are determined, converted into internal requirements, and communicated to the appropriate people in our organization ([P-720](#)).

5.3 Quality policy

Senior management ensures that the quality policy is communicated to all employees. It is included in new employee training and training on the QMS. It is posted in prominent places throughout the facility to maintain high standards within our organization.

Management periodically reviews the quality policy at each management review meeting to determine the policy's continuing suitability for our organization. The Quality Policy is documented in [P-501](#).

5.4 Planning

5.4.1 Quality objectives

Quality objectives are established to support our organization's efforts in achieving our quality policy and reviewed annually for suitability. Objectives have been established for the following:

Quality objectives have been established for each division, department, and team. They can be found in Quality Policy document [P-501](#). Quality objectives are measurable, and are reviewed against performance goals at each management review meeting.

5.4.2 Quality management system planning

The quality system has been planned and implemented to meet our quality objectives and the requirements of 4.1 of the AS9100B standard. Quality planning takes place as changes that affect the quality system are planned and implemented.

5.5 Responsibility, authority and communication

5.5.1 Responsibility and authority

An organizational chart has been established to show the interrelation of personnel in the organization. Job descriptions define the responsibilities of each of the positions on the organizational chart. Authorities are documented in the Authority Matrix ([F-500-04](#)) and in process documents. Job descriptions and the organizational chart are reviewed and approved by top management for adequacy. These documents are available throughout the organization to help employees understand responsibilities and authorities.

5.5.2 Management representative

The Director / Manager of Aero Hardware has been appointed by senior management as management representative. As management representative, they have the following responsibility and authority:

- Ensure that processes needed for the quality management system are established and implemented.
- Report to top management on the performance of the quality management system, and note needed improvements.
- Promote awareness of customer requirements throughout the organization.
- Act as a liaison with external parties such as customers or auditors on matters relating to the QMS.

In addition, the Management Representative has the authority and the organizational freedom with no constraints to resolve matters pertaining to the quality of the products and the system.

5.5.3 Internal communication

Processes are established for communication within the organization. Methods of communicating the effectiveness of the QMS include department and management meetings, management review, posting of minutes of management review meetings, Internal Audit Closing

meetings, and other routine business communication. The management strongly believes in the open-door policy and fosters an environment to encourage employees to communicate with the management.

5.6 Management review

5.6.1 General

Senior management reviews the performance of the QMS quarterly. This review assesses the continuing QMS suitability, adequacy and effectiveness, identifying opportunities for improvement and needed changes. The Management Representative maintains the records of each management review.

5.6.2 Review input

Assessment of the QMS is based on a review of information inputs to management review. These inputs include the following:

- Results of audits
- Customer feedback
- Process performance and product conformity
- Company level quality data
- Status of preventive and corrective actions
- Follow-up actions from previous management reviews
- Planned changes that could affect the quality management system
- Effect of any changes in the regulatory requirements
- Resource requirements/Resource planning
- Recommendations for improvement

Note: Items reviewed during the management reviews are dependent on the activity level in each area. Every input from the above list may not be reviewed at each management review. However, the Management ensures that all inputs are reviewed within a reasonable interval.

5.6.3 Review output

During these reviews, management will identify appropriate actions to be taken regarding the following issues:

- Improvement of the effectiveness of the quality management system and its processes
- Improvement of product related to customer requirements
- Resource needs
- Any new action items resulting from the review

Responsibility for required actions is assigned to members of the management review team. Any decisions made during the reviews, assigned actions, and their due dates are recorded in the minutes of management review.

Related Procedures:

Management Responsibility

[P-500](#)

Quality Policy

[P-501](#)

Section 6: Resource Management

6.1 Provision of resources

Aero Hardware & Supply Inc. has implemented a Quality Management System that complies with the AS9100B standard. This implementation has been achieved with management commitment and with sufficient resources for the implementation. To effectively maintain and continually improve the system, management determines and provides necessary resources.

6.2 Human resources

6.2.1 General

To ensure competence of our personnel, job descriptions have been prepared identifying the qualifications required for each position that affects product quality. Qualifications include requirements for education, skills and experience. Appropriate qualifications, along with required training, provide the competence required for each position. Competence is also monitored by the supervisors through observation of each employee's performance level for the assigned tasks.

6.2.2 Competence, awareness and training

Qualifications are reviewed upon hire, when an employee changes positions or the requirements for a position change. Human resources department maintains records of employee qualifications. If any differences between the employee's qualifications and the requirements for the job are found, training or other action is taken to provide the employee with the necessary competence for the job. The results are then evaluated to determine if they were effective. Training and evaluation are conducted according to the Training procedure ([P-622](#)).

All employees are trained on the relevance and importance of their activities and how they contribute to the achievement of the quality objectives.

6.3 Infrastructure

To meet quality objectives and product requirements Aero Hardware & Supply, Inc. has determined the infrastructure needed ([P-630](#)). The infrastructure has been provided, and includes buildings, workspace, utilities, process equipment and supporting services. As new infrastructure requirements arise, they will be documented in quality plans. Existing infrastructure is maintained to ensure product conformity. Maintenance requirements are documented in:

- Preventive maintenance plans
- Building maintenance plans

6.4 Work Environment

A work environment suitable for achieving product conformance is maintained. Requirements are determined during quality planning and documented in the quality plan. The work environment is managed for continuing suitability. Data from the quality system is evaluated to determine if the work environment is sufficient for achieving product conformance, or if

preventive or corrective action related to the work environment is required. Particular attention is given to the Foreign Object Debris (FOD) detection, removal and prevention throughout internal processing and through the delivery of the products. Employees are made aware of the importance of the FOD detection, removal and prevention through postings and training.

Related Documents

Competence, Awareness and Training	P-622
Infrastructure	P-630

Section 7: Product Realization

7.1 Planning of product realization

Quality planning is required before new products or processes are implemented. The quality planning takes place according to the Planning of Product Realization procedure ([P-710](#)). During this planning, management or assigned personnel identify:

- The quality objectives and requirements for the product,
- Processes, documentation and resources required
- Verification, validation, monitoring, inspection and test requirements, and
- Criteria for product acceptance
- Identification of records needed to provide evidence that all requirements have been met

The output of quality planning includes documented quality plans, processes, procedures and design outputs.

Note: Identification of resources needed to support operation and maintenance of the product does not apply since control of service provision is excluded from the scope.

7.2 Customer-related processes

7.2.1 Determination of requirements related to the product

Aero Hardware & Supply, Inc. determines customer requirements before acceptance of a contract or an order. Customer requirements include those:

- Requested by the customer
- Required for delivery and post-delivery activities
- Not stated by the customer but determined to be necessary for specified use or known and intended use
- Statutory and regulatory requirements related to the product
- Additional requirements determined by Aero Hardware & Supply, Inc.

Customer requirements are determined according to the Customer Related Processes Procedure. ([P-720](#))

7.2.2 Review of requirements related to the product

Aero Hardware & Supply, Inc. has a process in place for the review of requirements related to the product ([P-720](#)). The review is conducted before the contract or the order is accepted. The process ensures that:

- Product requirements are defined
- Contract or order requirements differing from those previously expressed are resolved

- Aero Hardware & Supply, Inc. has the ability to meet the defined requirements
- Any risks associated with fulfillment of the requirements for the products are identified, understood and mitigated
- Records are maintained showing the results of the review and any actions arising from the review
- Where a customer does not provide a documented statement of requirement, the customer requirements are confirmed before acceptance
- When product requirements are changed, Aero Hardware & Supply, Inc. communicates changes to relevant personnel and amends relevant documents

7.2.3 Customer communication

Aero Hardware & Supply, Inc. has implemented an effective procedure ([P-720](#)) for communicating with customers in relation to:

- Product Information
- Enquiries, contracts and order handling, including amendments
- Customer Feedback, including customer complaints

7.3 Design and Development

Design & Development is not performed by Aero Hardware & Supply at this time and is therefore excluded from the scope of the quality system registration.

7.4 Purchasing

7.4.1 Purchasing process

A documented procedure ([P-740](#)) is followed to ensure that purchased product conforms to the specified purchase requirements. The procedure outlines the extent of control required for suppliers. Suppliers are evaluated and selected based on their ability to supply product in accordance with requirements as outlined in the procedure ([P-740](#)). Criteria for selection, evaluation and re-evaluation are documented in the procedure.

Authorities for the selection, approval and disapproval of suppliers and sources is documented in the procedure ([P-740](#)).

Records of the evaluation and any necessary actions are maintained as quality records.

To demonstrate adequate control of the suppliers, Aero Hardware:

- Maintains an Approved Suppliers List (ASL) that includes scope of approval, approval status, contact information and other relevant information
- Reviews the supplier performance based on the quality of the products supplied and the timeliness in delivery and the responsiveness to Aero Hardware's needs. At the

discretion of the Management Representative, the results of the performance is used in establishing controls over the suppliers

- Takes appropriate actions such as “Placing the supplier on probation” or “Removal from the ASL” to deal with the suppliers that do not meet the Aero Hardware’s expectations on suppliers’ performance
- Ensures that the suppliers use customer approved and/or Aero Hardware approved special processes when specified in the purchasing information

7.4.2 Purchasing information

Purchasing information describes the product to be purchased, including where appropriate:

- Requirements for approval of product, processes and equipment
- Requirements for qualification of personnel
- Quality management system requirements

To meet the requirements of AS9100B, additional purchasing information is provided as applicable to the products, processes or service sought from the suppliers. Additional information includes, as applicable to the specific products, processes or service:

- Identification and applicable specifications, drawings, process requirements, inspection and technical data
- Verification arrangements and method of product release
- Requirements for the design, test, inspection and also instructions for acceptance (Aero Hardware does not design products)
- Requirements for test samples for approval by Aero Hardware
- Requirements for notification by the suppliers to Aero Hardware regarding any nonconforming products and requirements for approval by Aero Hardware for the disposition of such nonconforming products
- Requirements for the suppliers to notify Aero Hardware regarding any changes to the material, products or processes and to seek approval before such changes are implemented by the suppliers
- Agreement by the supplier to grant right of access to Aero Hardware, its customers and regulatory authorities when requested by such entities
- Requirements for the suppliers to flow-down all applicable requirements & key characteristics identified in the purchasing information, to their sub-tier suppliers

The purchasing documents are reviewed to ensure the adequacy of requirements before orders are placed with the supplier.

7.4.3 Verification of purchased product

The Purchasing procedure ([P-740](#)) describes the process used to verify that purchased product meets specified purchase requirements. If Aero Hardware & Supply, Inc. or the customer will perform verification at the supplier's premises, the verification arrangements and method of product release are documented in the purchasing information. Aero Hardware understands its responsibility for the acceptance of the supplied products and does not use verification by customers as an effective control of quality of the supplied products.

In addition to the specific verification activities stated in the procedure ([P-740](#)), Aero Hardware may use any of the following as the criteria for acceptance of the products supplied by the suppliers. The responsibility and authority to determine appropriate criteria for acceptance of the products is given to the Quality Manager and is based on the criticality of the supplied products.

- Obtaining & reviewing documented evidence such as the Certificate of Conformity (CoC), Test data etc. to ensure the quality of the products. Test data is verified by the inspectors to be acceptable per applicable specifications
- Source inspections at supplier's premises at the discretion of Aero Hardware and/or its customers
- Incoming inspection at Aero Hardware
- Delegation of verification authority to the suppliers.

Aero Hardware does not release the received products for use until all inspection and acceptance criteria are met. A register of supplier delegated verification authorities is kept in the approved supplier list ([F-740-03](#)).

7.5 Production and Service Provision

7.5.1 Control of production and service provision

Aero Hardware & Supply, Inc. plans and carries out production and service provision under controlled conditions according to documented procedure ([P-750](#)).

Planning for the product realization includes:

- Determining and establishing process controls when key characteristics are identified in the customer specifications or those identified by Aero Hardware in the realization processes
- Identification of inspection, verification and test plans through out the product realization (Generally documented in the work Order sequence)
- Design, fabrication, use and identification of tooling to be used (Identification of tools used are generally documented in the specific Work Instructions or in the Work Order) (Aero Hardware does not design products)
- Identify, validate, use and revalidate special processes (Aero Hardware does not currently have any special processes done in house. Relevant specifications for the special processes are supplied to the suppliers when special processes are outsourced)

Controlled conditions for the manufacture of the products include:

- The availability of information that describes the characteristics of the product
- The availability of work instructions
- The use of suitable equipment
- The availability and use of monitoring and measuring devices
- The implementation of monitoring and measurement
- The implementation of release and delivery activities

Note: Implementation of post-delivery activities does not apply to Aero hardware's products and therefore, this requirement is excluded from the scope.

- Responsibility for the accountability of all parts, components and finished products (Generally assigned to the of the area management and the employees who handle the products)
- Ensuring that all planned activities are completed satisfactorily before the product are released for shipping
- Ensure that all precautions are taken to detect, remove and prevent FOD throughout the internal processes
- Ensuring that required utilities such as the compressed air, electricity, water are available and are controlled
- Ensure that the criteria for workmanship are stipulated via training, representative samples and manufacturing aids

7.5.1.1 Production Documentation

Aero Hardware ensures that adequate production documentation is created, controlled and is made available at point of use to ensure that manufacturing of products takes place in accordance with approved data and documents. The production documentation includes relevant data which includes:

- Work Order (Traveler), drawings, specifications, Work Instructions, illustrations, Software Programs and standards
- List of tools to be used for each operation (Tools used are listed either in the Work order or in the instructions). Storage and preservation requirements for the tools are established in the procedure [P-750](#).

7.5.1.2: Production Process Changes:

Aero Hardware ensures that all production process changes are authorized and controlled. Only the Quality Manager and/or the Operations Manager are authorized to make any changes to the established processes. Such changes shall be reviewed and approved by the customers and/or regulatory authorities when required by contracts or regulations. All changes to the processes,

equipment, software programs and tools shall be documented, and verified to ensure that anticipated results are achieved without adversely affecting the products.

7.5.1.3: Control of Production Equipment:

Aero Hardware has established procedures ([P-750](#) & [P-760](#)) to ensure that tools and equipment used in the production & testing are validated before they are used. Such validation may be performed through the First Article Inspection (FAI) or the First Piece Inspection (FPI). Tools and equipment are stored and preserved in accordance with the Infrastructure procedure ([P-630](#)).

7.5.1.4: Control of Work Transferred:

Other than the work transferred to the suppliers for special processes, Aero Hardware does not transfer work to other facilities at this time. Work performed by the suppliers is controlled in accordance with the procedure [P-740](#) and [P-750](#).

7.5.1.5: Control of Service Operations:

Service operations are limited to the repair of hose assemblies per OEM specifications and FAA/EASA approvals (FAA Repair Station Certificate Number KE4R307M, EASA Repair Station EASA.145.5910). Therefore, Control of Service Operations is excluded from the scope of the quality system registration.

7.5.2 Validation of processes for production and service provision

Aero Hardware & Supply, Inc. doesn't currently perform any special processes. Therefore, this clause is excluded from the scope of the quality system registration.

7.5.3 Identification and traceability

Aero Hardware & Supply, Inc. identifies the product throughout product realization according to the Identification and Traceability procedure ([P-753](#)). Product is identified with respect to monitoring and measurement requirements.

Aero Hardware & Supply, Inc. controls and records the unique identification of the product wherever traceability is a specified requirement

Configuration of the product is maintained in accordance with the established procedure [P-430](#) in order to identify the configuration throughout the product life cycle.

Traceability from the raw material to the finished and delivered products as well as the traceability from the finished and delivered products to the raw material is provided through the configuration management process.

During the production, Aero Hardware maintains a sequential and retrievable record of its production activities through the Work Orders.

7.5.4 Customer property

Aero Hardware & Supply, Inc. exercises care with customer property while it is under the organization's control or being used. A procedure ([P-754](#)) outlines the Identification, verification, protection and safeguarding of customer property provided for use. If any customer property is lost, damaged or otherwise found to be unsuitable for use, this is reported to the customer and

records maintained. Customer supplied products include drawings, specifications, material, equipment, tools and intellectual property.

7.5.5 Preservation of product

Aero Hardware & Supply, Inc. preserves the conformity of product during internal processing and delivery to the intended destination per procedure ([P-755](#)). This preservation includes identification, handling, packaging, storage and protection. Preservation also applies to the constituent parts of a product.

Aero Hardware provides provisions for preservation to include:

- Product cleaning at defined stages of the product realization
- Foreign Object Detection, removal and prevention through training and supervision
- Special handling of heavy material
- Marking, labeling and safety warning when applicable
- Controlling material with shelf life and
- Handling of HAZMAT such as bi-products and solvents

Shipping department ensures that all required documents such as CoC, Test data and shipping documents are included with the shipment. Unless specified by the customers, products are transported and delivered through approved suppliers for transportation.

7.6 Control of monitoring and measuring devices

Aero Hardware & Supply, Inc. has determined the monitoring and measurement to be undertaken and the monitoring and measuring devices needed to provide evidence of conformity of product to determined requirements. A documented procedure ([P-760](#)) outlines the process used to ensure that monitoring and measurement to be carried out are carried out in a manner that is consistent with the monitoring and measurement requirements.

Where necessary to ensure valid results, measuring equipment is:

- Calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards
- Adjusted or re-adjusted as necessary;
- Identified to enable the calibration status to be determined;
- Safeguarded from adjustments that would invalidate the measurement result;
- Protected from damage and deterioration during handling, maintenance and storage.
- Recalled for re-calibration when due for calibration.

In addition, Quality Control assesses and records the validity of the previous measuring results when the equipment is found not to conform to requirements. Aero Hardware & Supply, Inc. takes appropriate action on the equipment and any product affected. Records of the results of calibration and verification are maintained

Related Documents

Planning of Product Realization Processes	P-710
Customer Related Processes	P-720
Design and Development (Excluded)	P-730
Purchasing	P-740
Control of Production and Service Provision	P-750
Identification and Traceability	P-753
Customer Property	P-754
Preservation of Product	P-755
Control of Monitoring and Measuring Devices	P-760

Section 8: Measurement, Analysis and Improvement

8.1 General

Aero Hardware & Supply, Inc. has plans and implements the monitoring, measurement, analysis and improvement processes as needed

- To demonstrate conformity of the product,
- To ensure conformity of the quality management system, and
- To continually improve the effectiveness of the quality management system.

These processes are identified in documented procedures and include determination of applicable methods, including statistical techniques, and the extent of their use.

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

As one of the measurements of the performance of the quality management system, Aero Hardware & Supply, Inc. monitors information relating to customer perception as to whether the organization has fulfilled customer requirements. The method for obtaining and using this information is identified in the Customer Related Processes ([P-720](#)) and the Management Responsibility procedures ([P-500](#)).

8.2.2 Internal Audit

Aero Hardware & Supply, Inc. conducts internal audits at planned intervals to determine whether the quality management system

- Conforms to the planned arrangements (see 7.1), to the requirements of AS9100B and to the quality management system requirements established by the organization
- Is effectively implemented and maintained.

An audit program has been designed and implemented and identifies an audit schedule based on the importance of the areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency, methods, responsibilities and requirements for planning and conducting audits, and for reporting and maintaining results, are defined and documented in the Internal Audit procedure ([P-822](#)).

The management responsible for the area being audited is responsible for ensuring that actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities include the verification of the actions taken and the reporting of verification results.

Detailed tools, process flow-charts and checklists are used during the Internal Audits. Internal audit results are analyzed to assess the effectiveness of the Internal Audit process and the tools. The Key Process Indicators (KPI) are the number of audit findings, trends of the findings in specific areas of the QMS (indicator of weakness) and any improvements achieved through the Internal Audit process.

A Compliance Matrix included and/or referenced from the Internal Audit Plan ensures that all key processes of the quality system, all requirements of the AS9100B and any customer-specific and regulatory requirements are covered by the Internal Audit Process.

Internal Auditors are qualified and trained in accordance with the guidelines provided in ISO 19011 guidance document.

8.2.3 Monitoring and measurement of processes

Aero Hardware & Supply, Inc. applies suitable methods for monitoring and, where applicable, measurement of the quality management system processes. These methods demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action is taken, as appropriate, to ensure conformity of the product. In the event of any detected process nonconformity, appropriate actions are taken to correct the processes in question and the affected products. The process for identifying and carrying out the required monitoring and measuring of processes is documented in the Monitoring, Measuring and Analysis of Product Realization Processes ([P-824](#)) and Management Responsibility procedures ([P-500](#)).

8.2.4 Monitoring and measurement of product

Aero Hardware & Supply, Inc. monitors and measures the characteristics of the product to verify that product requirements are fulfilled. This is carried out at appropriate stages of the product realization process identified in Monitoring, Measuring and Analysis of Product Realization Processes ([P-824](#)).

Evidence of conformity with the acceptance criteria is maintained. Records indicate the person authorizing release of product. Product release and delivery does not proceed until all the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority, and where applicable by the customer.

Key characteristics are normally identified by the customers in the drawings, specifications and the Statement of Work. Key characteristics are monitored and controlled throughout the product realization processes as identified in the production documentation.

Aero Hardware delegates the verification of the product to the supplier for all components. 100% of assembled product is tested prior to shipment. Aero Hardware also has the policy to implement specific sampling techniques if specified by the customers.

It is our policy not release any product until it has been determined that it conforms to the specified requirements. In case our customers request the product to be released before the completion of the specified requirements, a documented evidence is retained for such release.

8.2.4.1: Inspection Documentation:

Criteria for inspection, verification and acceptance of product at various stages of the product realization are documented in the Work Order or in other production documentation. Records required for such acceptance/rejections are retained. Tools and devices used for the inspection and measurements and instructions for their use (if they are not generally known) are recorded on the production documentation for traceability. When appropriate quantitative data of the test results are recorded and retained.

8.2.4.2: First article Inspection:

A First Article Inspection shall be conducted on the representative item from the first production of every new part or following any subsequent significant change in the product or process. Format for the FAI shall follow AS9102 guidance document.

8.3 Control of Nonconforming Product

Aero Hardware & Supply, Inc. ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product are defined in the Control of Nonconforming Product procedure ([P-830](#)). The top Management determines, designates and approves qualified individuals based on their experience, to make the decisions for the disposition of nonconforming products. This authority is noted in the individual's job descriptions.

Since our product is designed by the customers, it is our policy not to use "As-Is or Repair" disposition unless specifically authorized by our customers.

Product dispositioned for scrap shall be conspicuously and permanently marked or positively controlled until it is physically mutilated beyond use.

Notification process is in place for timely reporting of delivered nonconforming products that might affect reliability or safety. This process when exercised, will include description of the nonconformity, affected parts, customers, quantity and dates delivered.

8.4 Analysis of Data

Aero Hardware & Supply, Inc. determines, collects and analyses appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the quality management system can be made. The process for determining, collecting and analyzing this data is defined in the Management Responsibility procedure ([P-500](#)) and in procedure ([P-840](#)) Statistical Techniques. Appropriate data includes data generated as a result of monitoring and measurement and from other relevant sources.

The analysis of data provides information relating to

- Customer satisfaction
- Conformance to product requirements
- Characteristics and trends of processes and products including opportunities for preventive action
- Suppliers

8.5 Improvement

8.5.1 Continual improvement

Aero Hardware & Supply, Inc. continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.

8.5.2 Corrective action

Aero Hardware & Supply, Inc. takes action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered.

A documented procedure ([P-852](#)) defines requirements for

- Reviewing nonconformities (including customer complaints),
- Determining the root cause of nonconformities,
- Evaluating the need for action to ensure that nonconformities do not recur,
- Determining and implementing action needed,
- Records of the results of action taken (see 4.2.4), and
- Reviewing corrective action taken.
- Flowing down of the corrective actions to the suppliers when the Root Cause points to the supplier problems.
- Escalation process when timely and/or effective actions are not achieved

8.5.3 Preventive action

Aero Hardware & Supply, Inc. determines action to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions are appropriate to the effects of the potential problems.

A documented procedure ([P-853](#)) defines requirements for:

- Determining potential nonconformities and their causes
- Evaluating the need for action to prevent occurrence of nonconformities
- Determining and implementing action needed
- Records of results of action taken
- Reviewing preventive action taken

Related Documents

Management Responsibility	P-500
Customer Related Processes	P-720
Monitoring, Measuring and Analysis of Customer Satisfaction	P-821

Internal Audits	P-822
Monitoring & Measuring of Product & Realization Processes	P-824
Control of Nonconforming Product	P-830
Statistical Techniques	P-840
Corrective Action	P-852
Preventive Action	P-853