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QUALITY MANAGEMENT SYSTEMS MANUAL

AS 9100 Rev D / ISO 9001-2015 / AS 9110

REVISION DATE: Reference Only

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Introduction

Airtronics was founded in1975 by Jim Smith.

In 1997, Jim's son, Brad Smith was appointed President with responsibility for all company functions.

Airtronics has evolved from primarily a maintenance, repair, and overhaul facility into a company with a wide variety of capabilities. Our expanded capabilities include a state-of-the-art machine shop and manufacturing capabilities for all industry disciplines. We are complimented by an engineering staff with research and development and design capability.

We maintain ongoing relationships with all branches of the United States Military, the Federal Aviation Administration (FAA), and numerous commercial and government customers.

As a company we believe in the free enterprise system, and our employees. Based on these principles, our employees are committed to meeting customer requirements and maintaining customer satisfaction.

4.0 CONTEXT OF THE ORGANIZATION

4.1 Understanding the organization and its' content.

Airtronics has developed and implemented a quality management system to demonstrate its ability to provide products that meets customer and applicable statutory /regulatory requirements, and to maintain customer satisfaction through the effective application of the system, including continual improvement and the prevention of nonconformity.

Airtronics recognizes and determines relevant external, e.g., legal, technological, competitive market, cultural, social, and economic environments), and internal factors, e.g., values, culture, knowledge, and performance. These issues are taken into consideration at all levels of our QMS, including both positive and negative feedback.

4.2 Understanding the needs and expectations of interested parties.

Airtronics works with our customers, applicable statutory / regulatory agencies, and other interested parties to ensure a thorough understanding of their expectations and requirements to ensure compliance. Expectations of interested parties are primarily addressed during contract review and throughout the various stages of the QMS processes, e.g., ITAR, OSHA, Suppliers, Registrars, etc.

4.3 Determining the scope of the quality management system.

The quality system operates within the international standards AS 9100 Rev D/AS9110 Rev 2016 / ISO 9001-2015 and is structured as such. We do not perform design and development activities as defined in section 8.3 of the AS 9100 Rev. D standard.

Our current AS9100 certification scope is as follows.

Aerospace, instruments, Avionics, Controls, Hydraulics, Fuel and Accessories Repair, Overhaul, Machining, and Manufacturing Facility, Precision Machining.

Airtronics also holds several FAA repair station ratings and maintains a quality system in accordance with FAR Part 145.

4.4 Quality Management System and its' processes

Airtronics has established, documented, implemented, and maintains a quality management system (QMS) with the intent to continually improve its effectiveness, in conformance with requirements of AS9100 Rev D and AS 9110 Rev 2016 International Standards which includes all the requirements of ISO 9001-2015. Airtronics obtains and maintains any required QMS approvals, and any other approvals, certificates, ratings, licenses, and permits required by applicable statutory and regulatory requirements.

The QMS also addresses customer and applicable statutory and authority QMS requirements.

Some sections of the QMS are AS 9110 Rev. 2016 requirements and *may* only apply to MRO activities.

Airtronics QMS includes:

- The processes needed for the quality management system are determined and identified in this quality manual and in documented information.
- The documentation defines these quality system processes and their sequence and interaction. We adopt the "Plan / Do / Check / Act approach as referenced in the following graphs.
- Our quality system documentation defines criteria and methods needed to ensure that the operation and control of quality system processes are effective.
- Management provides resources and information requirements necessary to support the operation and monitoring of quality system processes.

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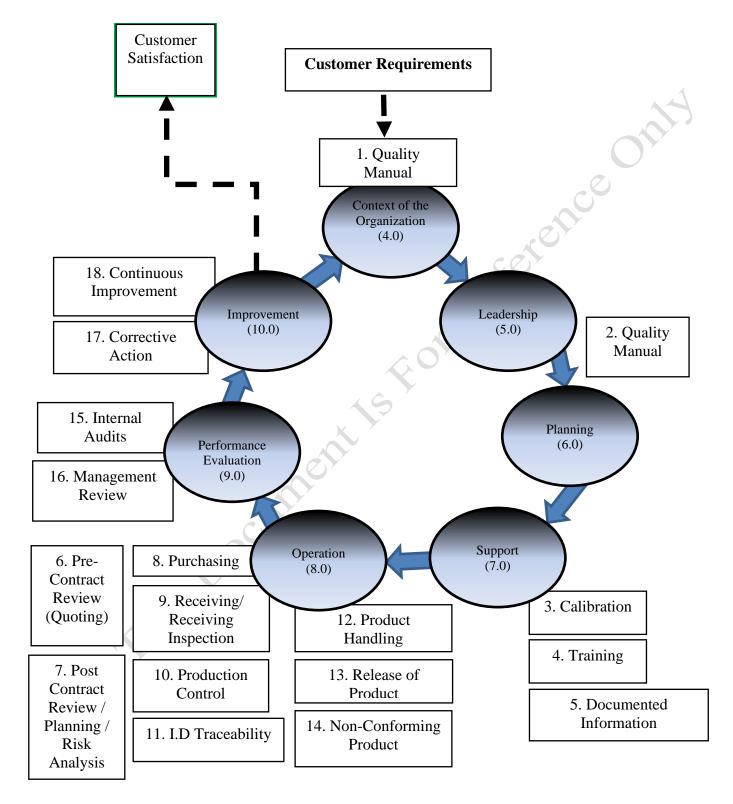
- Where applicable monitoring, measurement and analysis of these processes is performed.
- Necessary actions to achieve planned results and continuous improvement are taken, when appropriate.



The structure of our documented procedures is shown in the following matrix. Where no procedure is referenced, it is assumed that the activity is self-defined and/or defined in this Quality Manual. Quality System procedures are readily available to personnel who are responsible for compliance to requirements, to the customer, regulatory/statutory agencies and/or other applicable interested parties.

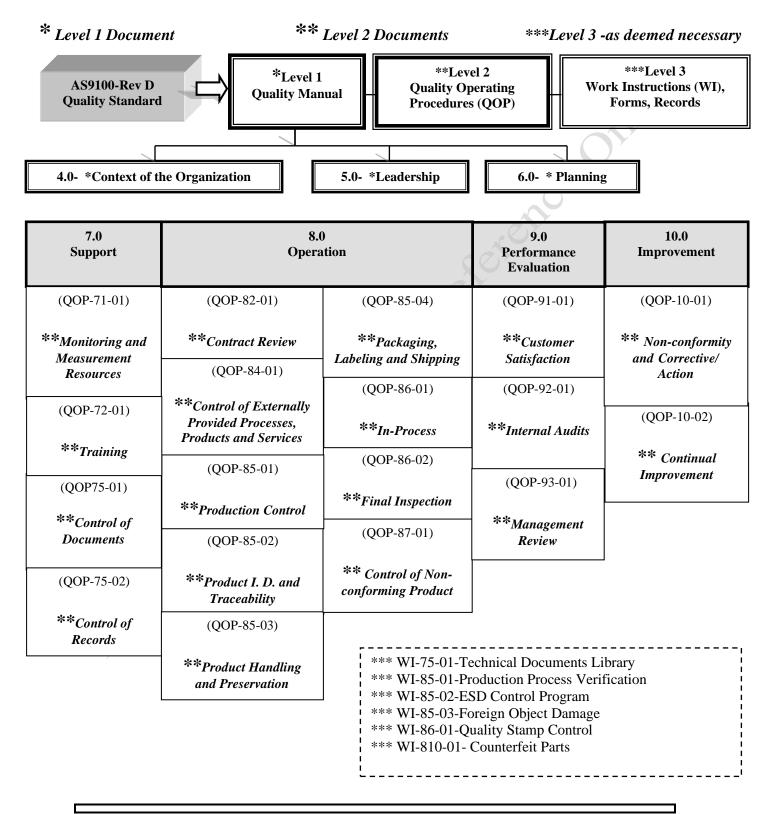
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Interaction of our QMS processes.



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Quality System Procedures Structure



5.0 **LEADERSHIP**

5.1 Leadership and commitment

The Corporate Policy of Airtronics is stated in our Mission Statement, which has been developed and agreed to by top management. Airtronics is committed to this policy through the implementation and maintenance of a Quality Management System, including establishing quality objectives that are aligned with our strategic direction and: eference

- Establishment of our quality policy.
- Conducting management reviews.
- Provision of resources.
- Establishing the safety policy
- Ensuring that safety objectives are established.

Top Management promotes the process approach and risk-based thinking and promotes continuous improvement of the QMS.

Routine reviews of the Quality System are done to ensure compliance with the established quality objectives.

Customer focus

Airtronics ensures that customer requirements are determined and met with the aim of enhancing customer satisfaction. Risks and opportunities are determined and addressed when reviewing customer satisfaction and statutory/regulatory requirements. Product and service conformity and on-time delivery are measured, and appropriate actions are taken if planned results are not or will not be achieved.

5.2 Policy

Establishing the quality / safety policy

Quality Policy /Safety Policy (Reference our Safety Manual)

Top management ensures that the Airtronics established quality and safety policy is:

- Appropriate to suit Airtronics.
- States our commitment to comply with the requirements and continuously improve the effectiveness of our QMS.
- Provides a framework for establishing and reviewing quality and safety objectives.
- Communicated and understood within Airtronics.
- Reviewed for continuing suitability and alignment with our strategic direction.

Mission Statement

TO ACHIEVE AND MAINTAIN 100% ON TIME DELIVERY WITH THE HIGHEST LEVEL OF QUALITY.

Quality / Safety Policy

Airtronics is committed to meeting customer requirements and increasing customer satisfaction through continual improvement of its processes, services, and the quality management system.

In support of our quality policy is our Safety Policy which is to commit to and maintaining a safe working environment for all employees and to provide protection to anyone entering our facility. We are committed to compliance with all applicable safety and to continue to assess opportunities for improvement of our safety program.

Communicating the quality policy

Quality and Safety policies are established and approved by the President of Airtronics.

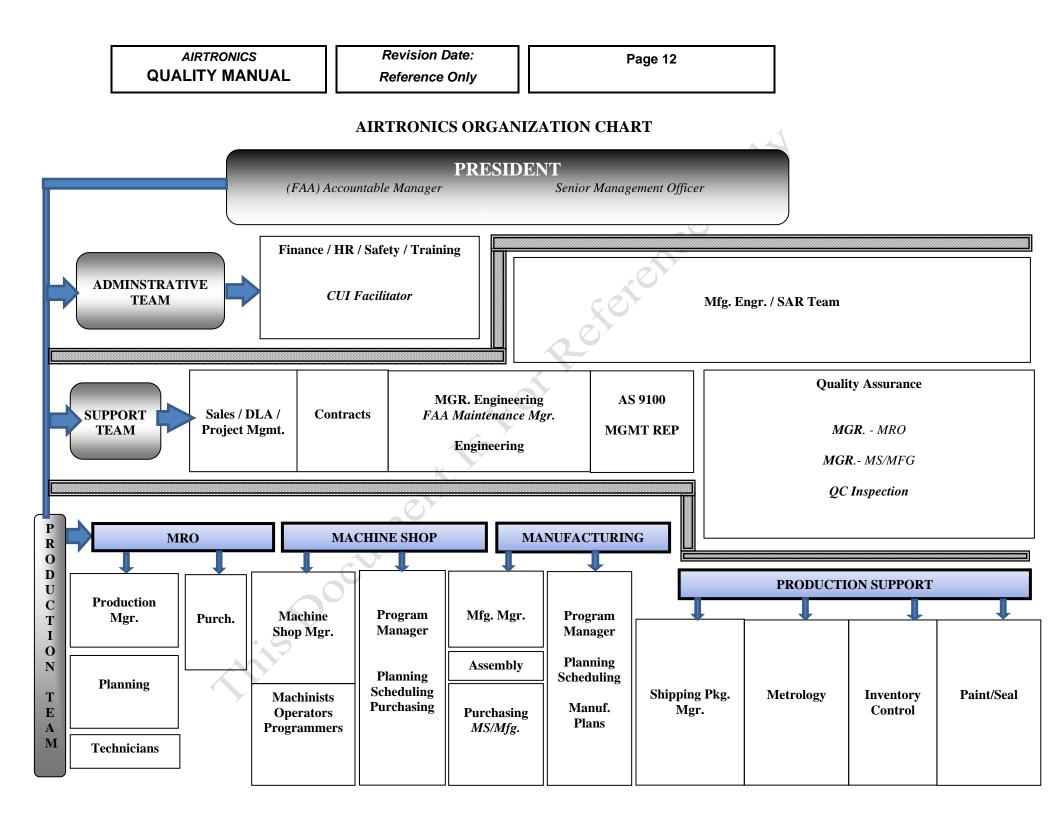
Any changes to the policy must be likewise approved by the President. This policy, demonstrating Airtronics objectives for and commitment to quality are to be communicated to all employees and as appropriate to interested parties. It is the responsibility of each Manager to ensure that all employees understand this policy and that it is maintained at all levels in the organization. This is accomplished by various means including but not limited to showing on company television throughout the facilities, postings on the employee bulletin boards at new employee orientation, etc.

5.3 Organizational roles, responsibilities, and authorities

The organizational chart in this quality manual describes the organizational and reporting structure of Airtronics. Authorities and responsibilities are further defined in individual procedures and documents.

Management Representative (QA Manager-MRO) has been assigned and has organizational freedom and unrestricted access to top management to resolve quality management and safety issues. Included, but not limited to his/her responsibilities are:

- To ensure that the quality management system is implemented, maintained, and continually improved.
- Reporting to the Top Management on the performance of the quality system, including needs for improvement.
 - Promoting awareness of customer requirements throughout the organization.



6.0 PLANNING

Actions to address risks and opportunities.

During the planning phase (primarily contract review), our emphasis is placed on analyzing risks associated with our QMS and product, to reduce undesired risks for us and our customers. Our planning activities also implement actions when risks and/or opportunities arise and evaluate the effectiveness of those actions.

6.1 Quality objectives and planning to achieve them.

Procedures are in place to ensure that quality objectives are achieved at relevant functions and levels within Airtronics. The following quality objectives are developed in conjunction with contract review and product realization and are ultimately targeted towards customer satisfaction. Objectives are measurable, consistent with the quality policy and are updated as appropriate. Strive for less than .05% product returns.

Strive to achieve 100% on time delivery.

Maintain current AS 9100 certifications.

6.2 Planning of changes

The integrity of our Quality Management System is maintained when changes to the system are planned and implemented. Considerations include purpose of the change, potential consequences, availability of resources and allocation of responsibilities. The planning of changes to the Quality Management System is evident throughout this manual and its complimentary procedures. Changes to our QMS are defined in the documented information process.

7.0 <u>SUPPORT</u>

7.1 Resources

Airtronics determines and provides the resources needed to establish, implement, maintain, and continuously improve the QMS. This includes consideration of the capabilities of, and constraints on, existing internal resources and what needs to be obtained from external providers.

People

Airtronics will identify those quality verification activities designed to assure that products meet contractual requirements and provide adequately trained personnel and other resources to perform the identified activities.

Airtronics ensures personnel required to be certified meet and maintain the applicable eligibility authority requirements.

Procedures are in place for qualification and surveillance of non-certified personnel who perform maintenance services.

Non-certified personnel are assessed on their ability to satisfactorily carry out maintenance operations prior to performing the work.

Personnel performing maintenance services and release of articles are qualified and certified in accordance with authority and customer contract requirements.

A training program (initial and recurrent training) is established and maintained to ensure that personnel performing maintenance tasks remain current in terms of procedures, human factors, technical knowledge, and applicable authority requirements.

Infrastructure

Airtronics provides an air conditioning/heated facility with adequate workspace and appropriate utilities that were designed and built specifically for our type of business and to ensure conformance to product requirements.

Process equipment for both hardware and software is provided, including state of the art production equipment, computer system, and telephone system.

Outside contractors are utilized for any infrastructure services that are beyond the scope of our internal resources. Building major systems like roof, heating, and cooling systems as well as overall building condition and functionality are monitored on a routine basis and serviced as required to maintain organization requirements.

Environment for the operation of processes

Airtronics provides and maintains a suitable environment necessary for operation. Conditions such as temperature, humidity, contamination, organization, plant layout, etc. are controlled as required to ensure that conformity of the product is achieved. Human and Physical factors are always considered. Airtronics abides by regulations governing social and psychological aspects of the workplace environment. This includes production and office work environments.

Monitoring and measuring resources.

Airtronics determines the monitoring and measuring that is required and then decides on what equipment is needed to provide evidence of conformity of product requirements. Control of Monitoring and Measurement of Equipment Procedure defines the process and methods utilized to control monitoring and measuring equipment, including measurement traceability. We maintain a database that defines the process employed for their calibration/verification, including details of equipment type, unique identification, frequency of checks, check method and acceptance criteria.

A recall method is in place to ensure equipment requiring calibration is performed when required.

Organizational knowledge

Airtronics encourages the development and growth of our knowledge base through a variety of corporate-supported activities. These activities include, but are not limited to, continued education and training opportunities, internal seminars and working groups, mentoring, standards, and professional organization memberships, etc.

7.2 Competence

Training needs are identified, and training is provided for all personnel performing activities affecting quality. Personnel performing specific assigned tasks are qualified based on appropriate education, training and/or experience. Assessment of training needs for all employees is performed on an on-going basis to ensure that current and future anticipated skill levels are adequate and/or achieved. Appropriate training records are maintained.

7.3 Awareness

To ensure the quality of our product, all persons performing work that affects the quality of product or processes will receive training on the quality policy and QMS, the objectives of the QMS, how they contribute to the QMS, the benefits achieved, and the implications of not conforming to the QMS. This includes, but not limited to awareness of their contribution to product/service conformity, product safety and ethical behavior.

7.4 Communication

Airtronics employs internal and external communication processes to ensure that the effectiveness of the Quality Management System is communicated throughout the organization and to interested parties. Communication is disseminated though various methods such as but not limited to:

New employee orientation Quality policy

Employee training

Internal audit results

Employee meetings

Company Website

Customer portals

Social Media

7.5 **Documented information**

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Airtronics has established, documented, implemented, and maintains a document information system to ensure the effectiveness of the QMS.

All documents and data pertaining to the requirements of the Airtronics quality management system are controlled, including, changes to documents, i.e., Revision control, protection from loss, unauthorized changes, unintended alteration, corruption, and physical damage.

Procedures are in place to ensure prevention of unintended use of obsolete documented information by removal or by application of suitable identification or controls when retained.

Quality records that demonstrate conformance to requirements and the effective operation of quality records are maintained until the expiration of their specified retention period or as specified by the customer contract.

Our QMS documented information is maintained in various types of media, e.g., electronic, hard copy, etc.

Electronic documented information is backed up daily through an outside server.

8.0 **OPERATION**

8.1 Operational planning and control

Airtronics plans and manages product realization in a structured and controlled manner to meet requirements at acceptable risk, within our resources and schedule constraints. Our documented information defines the operational planning and control process.

Airtronics has established, implemented, and maintains a process to plan and control the temporary or permanent transfer of work (e.g., from one organization facility to another, from the organization to a supplier, from one supplier to another) and to verify the conformity of the work to requirements.

Operational Risk Management

Airtronics has established, implemented, and maintains a process for managing operational risk to the achievement of applicable requirements that includes as appropriate to Airtronics products and services.

Methods for determining operational risk during the evaluation of new and existing products are defined in our documented information.

Configuration Management

Airtronics has established, implemented, and maintains a configuration management process that is appropriate Airtronics products and services to ensure the identification and control of physical and functional attributes throughout the product life cycle.

The methods for the planning of configuration management during the evaluation of new and existing products are defined in our documented information.

Product Safety

Airtronics has implemented and manages a product safety program to assure product safety during the entire product life cycle as appropriate to Airtronics and the product. Safety policies are established and approved by the President of Airtronics. Safety objectives and requirements for the product are considered during planning.

Prevention of counterfeit parts

Airtronics has implemented and manages a counterfeit parts prevention program that is appropriate to Airtronics products for the prevention of counterfeit or suspect counterfeit parts use and their inclusion into products delivered to the customer. It is defined in our documented information.

8.2 Requirements for products and services

Customer Communication

Airtronics maintains customer communication to ensure that information relating to our products and services is understood by all parties. All issues are resolved prior to moving forward. Our documented information defines our methods of customer communication. When required customers will be notified of product transition or other critical processes through the program management team.

Determining the requirements related to products and services.

When determining the requirements for our products and services we ensure that the products and services are defined, including statutory and regulatory requirements, requirements we consider necessary and that we can meet all our claims. We determine any special requirements and operational risks.

Review of the requirements related to products and services.

When determining the requirements Airtronics reviews customer contracts and contract modifications prior to committing to supply products and services to the customer.

Documented information of the results of these reviews, any new requirements, changes to original requirements and actions arising from the reviews are maintained. After review, any documented information is appropriately amended, and applicable personnel are made aware of the changed requirements.

8.3 NOT APPLICABLE TO OUR QMS

8.4 Control of externally provided processes, products, and services.

Externally provided processes, products, and services are controlled and maintained to ensure our products and services comply with requirements, including conformity of products and services from sources defined by our customers.

Airtronics evaluates, selects, monitors performance, and re-evaluates our external suppliers, based on their ability to provide products and services in accordance with requirements.

Risks associated with suppliers, including selection and use of suppliers, is managed. External providers are required to apply appropriate controls to their direct and subtier suppliers to ensure requirements are met.

This process is defined in our documented information.

Type and extent of control

Documented information defines processes to ensure that products, and services do not adversely affect our ability to consistently deliver conforming products and services to our customers.

Airtronics performs verification activities of externally provided processes, products, and services according to the risk identified, including periodic testing, as applicable for high risk of nonconformities exist and/or suspected counterfeit parts.

Information for external providers

Purchase orders are reviewed for adequacy and approved by appropriate personnel prior to communication with external suppliers.

Purchase order information for products and services is clearly and completely described and any additional requirements (i.e., purchasing/quality clauses) are stated on purchase order. Documented information further defines information for external suppliers.

8.5 Production and service provision

Control of production and service provision

All production and service operations at Airtronics are planned, documented, and controlled. The characteristics of the product, services provided or activities to be performed and the results to be achieved are defined in documented information. Human factor practices are considered to prevent human error.

Process parameters, workmanship criteria and product characteristics, including key/critical characteristics as required by contract are approved, monitored, and controlled.

Foreign object debris/damage is considered in all phases of production and service. Monitoring and control of utilities and supplies to the extent they affect product conformity is evident throughout our facility.

Product released for production use pending completion of all required measuring and monitoring activities are identified and recorded in documented information to allow recall and replacement if it is later found that the product does not meet requirements.

Control of Equipment, tools, and software programs

All equipment, tools and software programs used to automate, control, monitor, or measure production processes are validated prior to final release for production and maintained, including storage maintenance.

Validation and control of special processes

Airtronics establishes arrangements for validation and control of special processes where the resulting output cannot be verified by subsequent monitoring or measurement.

Production process verification

Airtronics has documented information to define our production process verification (First Article Inspection) to ensure the production process is able to produce products that meet requirements.

Identification and traceability

Airtronics has documented information on how outputs are identified and traced throughout the product realization process to ensure the conformity of products and services.

Identification is maintained of the configuration of products and services to identify any differences between the actual configuration and the required configuration. Traceability is maintained throughout the entire product realization process and product life, including unique identification when required by contract.

Property belonging to customers or external providers.

Airtronics maintains methods for identification, verification, maintenance, storage, and incorporation of customer and/or external provider supplied property to ensure its preservation while it is under Airtronics control. Specifically, property provided for use or incorporation into products and services.

Preservation

Airtronics has documented information defining the method and processes utilized for identification, handling, contamination control, packaging, storage, transmission or transportation and protection of output during the production and service provision. Clearly designated, adequate and secure storage areas are provided for storage of specific goods.

Methods and materials for packing, packaging, marking and preservation of product are established. The methods and materials used conform to applicable specified requirements or to industry standard practices.

Post-delivery activities

Post-delivery activities are determined during planning phases of product requirements and/or specified by the customer. Post-delivery considerations include: statutory and regulatory requirements, the potential undesired consequences associated with our the product/service, the nature, use, and intended lifetime of product/service, customer requirements, customer feedback, collection and analysis of in-service data, control, updating and provision of technical documentation relating to product use for maintenance repair and overhaul, controls required for work undertaken external to Airtronics, product/customer support

Problems detected after delivery are investigated, reported and appropriate action is determined and taken with customer approval when required.

Control of changes

Documented information defines the review and control process for changes made to documented information relating to production and service provision. This includes changes made to affecting processes, production equipment, tools, or software programs.

8.6 Release of products and services

Airtronics has documented information defining our process for the release of products and services. These procedures define planned arrangements at appropriate stages to ensure that the conformity of the product or service has been satisfactorily completed, including documented information showing evidence of conformity with acceptance criteria and traceability authorizing the release and the appropriate documented information that is required to be present at delivery.

8.7 Control of nonconforming outputs

Airtronics ensures that outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery. Appropriate action is taken based on the nature of the non-conformity and its' effect on the conformity of products or services. This applies to non-conforming products and services detected after delivery, during or after the provision of services. Documented information defines the non-conformity control process, including responsibilities and documented information that is to be retained.

9.0 **PERFORMANCE EVALUATION**

9.1 Monitoring, measurement, analysis, and evaluation

Airtronics determines what needs to be monitored, measured, the methods for monitoring, measurement, analysis, and evaluation required to ensure valid results; when monitoring and measurement is performed and when the results are to be analyzed and evaluated. This includes the evaluation of the performance of our QMS. Documented information is retained as appropriate as evidence.

Customer Satisfaction

Airtronics utilizes various methods for determining customer perception as to whether we have met customer requirements, expectations and have provided customer satisfaction. Methods may include, but are not limited to reviewing customer feedback, returned material data, corrective action requests, warranty claims. Information obtained by any of the chosen methods shall be evaluated and appropriate actions are implemented to improve customer satisfaction. The effectiveness of the results of actions implemented is assessed.

Analysis and Evaluation

When applicable the appropriate data and information arising from monitoring and measurement are analyzed and evaluated including product and service problems reported by external sources. (e.g., government/industry alerts, advisories) The methods for analyzing data and information collected vary depending on the associated risk and/or customer requirements, including statistical techniques. Results of analysis and evaluation reviewed during management review as deemed necessary.

9.2 Internal audit

Internal audits are performed per an audit plan to verify that quality related activities comply with AS9100, our QMS requirements, including customer and applicable statutory/regulatory QMS requirements and that the QMS is effectively implemented and maintained. Documented information defines our internal audit process.

9.3 Management review

The Quality Management System is reviewed at planned intervals by the management team of Airtronics to ensure its' continued suitability, adequacy, effectiveness, and alignment with our strategic direction. The reviews will be utilized as a forum for making important revisions and assessing opportunities for improvement to the Quality Management System in response to changing markets, technologies, and other conditions. Documented information defines the management review process, including consideration of appropriate inputs and managing the outputs. Documented information is retained as evidence of the results of management review.

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10.0 <u>IMPROVEMENT</u>

10.1 General

Airtronics determines and selects opportunities for improvement and implements necessary actions to meet customer requirements and enhance customer satisfaction, including, improving products and services to meet requirements and address future needs and expectations, Correcting, preventing, or reducing undesired effects and improving the performance and effectiveness of the QMS.

10.2 Nonconformity and corrective action

Airtronics reacts as applicable to non-conformances by taking action to control and correct it and deal with the consequences.

Airtonics evaluates and determines the causes of the non-conformity, to prevent recurrence or occur elsewhere.

Corrective actions are reviewed for effectiveness.

Risks and opportunities are determined during planning.

Changes are made to the QMS as appropriate.

Corrective actions relating to external providers are flowed down as applicable.

Specific actions are taken when timely and effective actions are not achieved.

Corrective actions are appropriate to the effects of the non-conformities encountered.

Documented information defines our non-conformity and corrective action

management process, including retention.

10.3 Continual improvement

Airtonics strives to continuously improve the suitability, adequacy, and effectiveness of our quality management system.

The results of analysis and evaluation and from management review are utilized to determine if there are needs or opportunities that can be addressed as continual improvement.

Documented information defines the process for the implementation of improvement activities and the evaluation of the results.