



Based on ISO 9001, but with nearly 100 additional requirements specific to aerospace, AS9100 provides suppliers with a comprehensive quality system focused on areas directly impacting product safety and reliability. As many OEMs now require AS9100 in order to enter their supply chain, registration can open new doors to contract opportunities.

### **AEROSPACE QUALITY MANAGEMENT SYSTEMS**

- AS9100 Because product performance can be affected by a failure to handle parts and materials correctly, AS9100 addresses the complexity and diversity of the general aerospace supply chain. It takes into consideration the complete life cycle of aerospace products.
- AS9110 This standard includes specific aerospace quality
  management system requirements for maintenance, repair and
  overhaul (MR&O) organizations. It focuses on controlling repair
  schemes and maintenance plans, configuration management, as
  well as the skills and qualifications necessary to perform MR&O
  tasks within the aerospace community.
- AS9120 With a focus on verification of approved parts, chain of custody, traceability, record control and part availability, AS9120 includes specific aerospace requirements for distributors of aerospace related material, hardware and components.

#### MEETING CUSTOMER EXPECTATIONS

When your organization aligns to AS9100, it not only reaps quality and efficiency benefits, but also is better able to meet customer expectations. Registration can provide a competitive advantage by:

- Creating focus around specific customer requirements,
- Identifying opportunities for operational improvements and cost reduction, and
- Enhancing performance due to higher quality, waste reduction, and focus on customer satisfaction.

### Performance Improvement

Registration offers the opportunity for business improvement initiatives that come from implementing universal management systems.
AS9100, with related standards that together are recognized throughout the world, can potentially improve your operations through:

- Quality and cost management benefits that flow from the common language and procedures of global quality management standards,
- Programs and initiatives that can be designed through employee involvement, creating heightened buy-in to your systems,
- Enhanced quality of your processes and products, and
- Improved efficiency, communication, documentation, traceability, and more.

QMI – SAI Global's Certified System StandardsMark® is recognized by leading aerospace companies worldwide





QMI — SAI Global's on-site supplier assessments can help you manage risk.

Ask how we can customize a program for you.

QMI — SAI Global is focused not only on evaluating your business practices against a standard, but also on understanding how compliance with those standards can improve your operations. From the time of initial application to the delivery of the certificate and beyond, QMI — SAI Global's efficient and streamlined processes make registration understandable and achievable. QMI — SAI Global has the in-depth, broad based aerospace industry experience your company requires to meet the expectations of aerospace OEMs, prime suppliers, and other key stakeholders in the aerospace industry.

### AS9100 TRAINING

QMI — SAI Global's training division offers a wide variety of aerospace courses to meet your needs, from a seminar in the basic fundamentals of aerospace registration to an in-depth internal auditor session. Courses are available for both AS9100 and AS9110. Visit our web site at <a href="www.qmi-saiglobal.com/training">www.qmi-saiglobal.com/training</a> for course descriptions and dates, as well as information about on-site training opportunities at your place of business.

#### EXCEPTIONAL AUDITORS

At QMI — SAI Global, the requirements for aerospace experienced auditors (AEAs) exceed those imposed by the industry, ensuring your audit team is highly qualified. You will find that our auditors are:

- Well-versed in aerospace's unique requirements,
- Experienced industry veterans who will guide you smoothly through your registration, and
- Strategically located across North America, ensuring minimal travel costs.

# **Ongoing Support**

QMI – SAI Global's commitment to serving your organization continues long after you receive your certificate. Our pledge to support your continual improvement includes:

- Support from a dedicated aerospace product manager who oversees the continuous education of QMI – SAI Global auditors and supports customers as needed,
- Participation in strategic aerospace opportunities that will enable us to recognize industry trends and keep you abreast of upcoming important initiatives, including changes to aerospace standards,
- Ongoing learning opportunities, such as free webinars that focus on continual improvement, and
- Access to our electronic customer portal allows for unique, hands-on management of your registration.



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Rev 10/2009





## AS9110 - IMPROVING REPAIR STATION QUALITY

To better understand the requirements, knowledge of specific AS9110 definitions is important.

#### AS9110 TERMINOLOGY

- Authority The national aviation authority having jurisdiction over the manufacturer, aircraft owner and operator, as well as maintenance organizations; the Authority could be civil or military. Note: The Authorities in North America are the Federal Aviation Administration (FAA) and Transport Canada (TC).
- Key Characteristic The features of a material, process, or part whose variation has significant influence on product fit, performance, service life or manufacturability.
- Maintenance The overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft or an aircraft component that is performed after completion of manufacturing and initial airworthiness certification by the applicable Authority.
- Technical Data Data that is necessary to help ensure that the aircraft or aircraft component can be maintained in a condition such that serviceability and airworthiness of the aircraft and related operational and emergency equipment is assured. This data includes maintenance programs airworthiness directives, service bulletins, major repairs/modifications, operator maintenance manuals, drawings, engineering orders, component maintenance manuals, technical orders, and more.
- Human Factors Recognition that personnel performing tasks are affected by physical fitness, physiological characteristics, personality, stress, fatigue, distraction, communication and attitude.
- Release Certificate A document certifying that the activities performed and the results achieved conform to established organization, Authority, and contract requirements.

## Improving MRO

AS9110 is based on ISO 9001 and includes aerospace specific requirements unique to the MRO segment, including reference to civil aviation authority requirements.

"AS9110 focuses on controlling repair schemes and maintenance plans, configuration management, as well as the skills and qualifications necessary to perform MR&O tasks within the aerospace community."

One constant theme throughout the standard is the reference to Authority requirements. The primary reference is found up-front in the General Requirements (4.1) section and sets the foundation for the quality system. It states that, Maintenance Organizations shall obtain and maintain any required quality management system approvals and any other approvals, certificates, ratings, licenses, and permits required by the responsible Authority.



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#### ✓ THE MAIN AREAS OF PRIMARY MRO

- Configuration Management requires that a management discipline be applied over the life cycle of a product to help provide visibility and control of its functional and physical characteristics.
- Management Responsibility requires that Top Management appoint an Accountable Executive Manager and a Maintenance Manager to all maintenance activities that are carried out in accordance with customer and Authority requirements.
- Competence, Awareness and Training requires that the organization ensure that personnel performing maintenance release are qualified and certified in accordance with Authority requirements.
- Review of Requirements Related to the Product requires
  maintenance contracts specify the scope of work, define data and
  delivery requirements, and define the requirements regarding
  subcontracting of work. Design and Development applies only to
  organizations responsible for the design of modifications.
- Purchasing addresses controls to help prevent the purchase
  of counterfeit or unapproved product. The section also addresses
  flow down requirements to include specific authority requirements,
  the format and content of the organization's release documentation
  package, as well as conditions under which defects and
  unairworthy conditions have to be reported.
- Control of Production and Service Provision addresses the prevention, detection and removal of foreign objects, including tools. Foreign objects (tools, fasteners/ear rings, paper clips) left inside aircraft or aircraft components can have catastrophic results.
- Monitoring and Measurement of Product Addresses the preparation and completion of Authority documentation upon completion of work. This is commonly known as the FAA 8130.

### **Additional Benefits**

- AS9110 drives an organization to include the Authority requirements in the Quality Management System. This provides the organization with one system to identify and maintain Authority requirements, while at the same time meeting or exceeding customer requirements through a system of continual improvement.
- An organization certified to AS9110 will be listed in the Online Aerospace Supplier Information System (OASIS), the international database which publishes all Aerospace quality certifications, which is required by many OEMs.
- Quality and cost management benefits that can flow from the common language and procedures of global quality management standards.
- Improved efficiency, communication, documentation, traceability and more.



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Rev 01/2011