

 AEROSPACE STANDARD	AS7110	REV. D
	Issued 1995-03 Revised 2003-12 Cancelled 2007-03 Superseded by PRI AC7110	
Nadcap Requirements for Welding/Brazing		

RATIONALE

AS7003 at Revision C removed the requirement for AS standards. The Nadcap Weld Task Group have revised their checklists and per AS7003 have not re-written associated standards. The AS standards, therefore, require cancellation.

CANCELLATION NOTICE

This document has been declared "CANCELLED" as of March 2007 and has been superseded by PRI AC7110. By this action, this document will remain listed in the Numerical Section of the Aerospace Standards Index noting that it is superseded by PRI AC7110. Cancelled specifications are available from SAE.

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Superseding AS7110C

**Nadcap
Requirements for Welding/Brazing**

1. SCOPE:

This Aerospace Standard (AS) establishes the requirements for suppliers of Welding/Brazing Services to be accredited by Nadcap. These requirements may be supplemented by additional requirements specified by Nadcap Welding Task Group. Using the audit checklist (AC7110) will ensure that accredited Welding/Brazing suppliers meet all of the requirements in this standard and all applicable supplementary standards.

2. REFERENCES:

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AS7001	Nadcap - Program Description
AS7002	Nadcap - Rules for Implementation
AS7003	Nadcap - Program Operation
AS7110/1	Nadcap - Requirements for Brazing (Torch & Induction)
AS7110/2	Nadcap - Requirements for Flash Welding
AS7110/3	Nadcap - Requirements for Electron Beam Welding
AS7110/4	Nadcap - Requirements for Resistance Welding (Spot, Seam, Projection)
AS7110/5	Nadcap - Requirements for Fusion Welding

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2.1 (Continued):

AS7110/6	Nadcap - Requirements for Laser Welding
AS7110/7	Nadcap - Requirements for Rotational Friction/Inertia Welding
AS7110/8	Nadcap - Requirements for Diffusion Welding
AS7110/9	Nadcap - Requirements for Percussion Stud Welding
AS9000	Aerospace Basic Quality System Standard
AS9100	Quality Systems - Aerospace - Model for Quality Assurance in Design, Development, Production, Installation and Servicing

2.2 PRI Documents:

Available from Performance Review Institute, 161 Thornhill Road, Warrendale, PA 15086-7527.

3. GENERAL QUALITY SYSTEM:

The supplier's quality system shall be approved by one of the following:

- a. Nadcap approval to PRI AC7004.
- b. Certification/registration program recognized by Nadcap. Compliance with the requirements of AS9000/AS9100 is required to support the Nadcap Welding Accreditation process.

3.1 Quality Policy:

- 3.1.1 There shall be a documented quality system in place.
- 3.1.2 Management shall establish a documented, comprehensive quality policy.
- 3.1.3 The quality system shall be reviewed at least annually by upper level management and reviews shall be documented.

3.2 Organization:

- 3.2.1 A formal organization chart shall exist that defines the organizations within the company.
- 3.2.2 The quality organization shall be functioning and without longstanding vacancies.

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3.2.3 Documented audits of the quality system, process and/or product shall be carried out by personnel independent of those having direct responsibility for the work being performed.

3.3 Quality System:

3.3.1 Documentation shall support that the details of the quality system are thoroughly implemented.

3.3.2 One of the goals of the quality system shall be continuous improvement of the welding / brazing processes.

3.3.3 Procedures and/or other instructions shall conform to a written system of revision control.

3.3.4 Employees shall perform their jobs in conformance with applicable procedures.

3.4 Communications:

3.4.1 There shall be a policy that specifies continuous two-way communications between management and employees including solicitation, review, and acknowledgement of employee suggestions and comments.

3.5 Contract Review:

3.5.1 Written procedures shall exist to assure that contractual requirements flow down internally and to sub-tier suppliers.

3.5.2 There shall be a documented review system for inquiries, requests for quotations, contracts, purchase orders, or other media that flow down contractual requirements.

3.5.3 Written procedures shall require review of purchase orders and purchase order amendments to assess ability to conform to requirements.

3.5.4 The review shall assure that all quality and technical requirements are identified and documented.

3.5.5 Procedures shall require incorporation of quality requirements in the planning of each job before entering the process.

3.5.6 Procedures shall ensure that the documentation requirements are included on job orders entering the production system.

3.5.7 Records shall indicate that the contract review procedure is followed.