

Issued	1995-03
Revised	2003-12
Cancelled	2007-03
Superseding AS7110/8C	

**Nadcap
Requirements for Diffusion Welding**

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. By this action, this document will remain listed in the Numerical Section of the Aerospace Standards Index.

SAENORM.COM : Click to view the full PDF of as7110-8d

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2007 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Tel: 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: <http://www.sae.org>

SAENORM.COM : Click to view the full PDF of as7110_8d

AEROSPACE STANDARD

SAE AS7110/8

REV.
D

Issued 1995-03
Revised 2003-12
Cancelled 2007-03

Superseding AS7110/8C

Nadcap Requirements for Diffusion Welding

1. SCOPE:

This Aerospace Standard (AS) is to be used to supplement AS7110, and/or any Nadcap recognized quality system. In addition to the requirements contained in AS7110, the requirements contained herein shall apply to suppliers seeking Nadcap accreditation for diffusion welding.

2. REFERENCES:

2.1 SAE Publications:

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

AS7110 Nadcap - Requirements for Welding/Brazing

3. REFERENCE REQUIREMENTS:

3.1 Applicable customer specifications shall be available at the facility.

4. MATERIALS/MATERIAL CONTROL:

4.1 The marking, input, and stop-off materials called out in detailed procedures shall be used.

4.2 Sufficient trim material shall be provided so that test samples for all routine microstructural and mechanical property testing can be obtained without destruction of parts.

4.3 The process control specimen shall represent the production configuration and process.

4.4 Sample structures shall be approved by the purchaser, when required.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2007 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER:

Tel: 877-606-7323 (inside USA and Canada)

Tel: 724-776-4970 (outside USA)

Fax: 724-776-0790

Email: CustomerService@sae.org

<http://www.sae.org>

SAE WEB ADDRESS:

SAE AS7110/8 Revision D

- 4.5 Material parameters and properties shall be as specified on the drawing.
- 4.6 The incoming material grain size shall conform to customer requirements.
- 4.7 Tooling, lubricant, and other material used during processing shall be compatible with the base material.
- 5. EQUIPMENT CONTROL:
 - 5.1 Part thermocouples shall be calibrated by a documented procedure, to meet customer requirements.
 - 5.2 Hot presses and furnaces shall be qualified and controlled in accordance with applicable customer specification.
- 6. QUALIFICATION OF WELD PROCEDURES/SCHEDULES:
 - 6.1 Weld procedures/schedules shall identify those parameters specified by the applicable customer specifications.
 - 6.2 Welding procedure qualification records shall be maintained in accordance with applicable customer specifications, when required.
 - 6.3 All other welding processes used for assembly shall be performed by qualified personnel in accordance with qualified procedures and using qualified equipment if required.
- 7. PROCESS CONTROL:
 - 7.1 Cleaning:
 - 7.1.1 Sufficient stock thickness allowances shall be made to perform post-bonding chemical cleaning.
 - 7.1.2 Parts shall be cleaned by the detailed procedure.
 - 7.1.3 Surfaces of the part details and representative test specimens shall be properly cleaned and free from contaminants such as oxides, scale, oil, dirt, ink, or other surface conditions that are detrimental to the welding process.
 - 7.2 Stop-off Application:
 - 7.2.1 When used, stop-off shall be applied to the part by detailed procedure.
 - 7.2.2 Provisions shall be made to prevent application of stop-off in areas to be welded.