JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS Z 3140 : 2017

(JWES)

Method of inspection and acceptance levels for resistance spot welds

ICS 25.160.40

Reference number : JIS Z 3140 : 2017 (E)

Date of Establishment: 1978-09-01

Date of Revision: 2017-04-20

Date of Public Notice in Official Gazette: 2017-04-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Metal and Inorganic Materials

JIS Z 3140 : 2017, First English edition published in 2017-09

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

Printed in Japan HT/HN

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Welding Engineering Society (JWES) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS Z 3140**:1989 is replaced with this Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

Method of inspection and acceptance levels for resistance spot welds

1 Scope

This Japanese Industrial Standard specifies the grades, inspection method and acceptance criteria for resistance spot welds (hereafter referred to as welds) of mild steel, low alloy steel, high strength steel, stainless steel, aluminium and aluminium alloy materials with a sheet thickness not less than 0.4 mm and not greater than 5.0 mm. This Standard is applicable to surface-treated materials.

Further, this Standard is only applicable to resistance spot welding which forms nuggets.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS Z 3001-1 *Welding and allied processes — Vocabulary — Part 1 : General*

JIS Z 3001-2 *Welding and allied processes — Vocabulary — Part 2 : Welding processes*

JIS Z 3001-6 *Welding and allied processes — Vocabulary — Part 6 : Resistance welding*

JIS Z 3136 *Specimen dimensions and procedure for shear testing resistance spot and embossed projection welded joints*

JIS Z 3137 *Specimen dimensions and procedure for cross tension testing resistance spot and embossed projection welded joints*

JIS Z 3139 *Methods of macro testing and Vickers hardness testing for section of resistance spot, projection and seam welds*

JIS Z 3144 *Routine test of resistance spot and projection welds*

JIS Z 3400 *Quality requirements for fusion welding of metallic materials*

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in **JIS Z 3001-1**, **JIS Z 3001-2**, **JIS Z 3001-6**, **JIS Z 3144** and **JIS Z 3400**, and the following apply.

3.1 high strength steel

steel whose parent material has a tensile strength of not less than 370 MPa and not greater than 1 180 MPa