

JIS

JAPANESE INDUSTRIAL STANDARD

**Method of test for
butt pressure welded joints**

JIS Z 3143—1996

Translated and Published

by

Japanese Standards Association

**In the event of any doubt arising,
the original Standard in Japanese is to be final authority**

Errata for JIS (English edition) are printed in *Standardization Journal*, published monthly by the Japanese Standards Association.

Errata will be provided upon request, please contact:

**Business Department,
Japanese Standards Association**
4-1-24, Akasaka, Minato-ku,
Tokyo, JAPAN 107
TEL. 03-3583-8002
FAX. 03-3583-0462

Errata are also provided to subscribers of JIS (English edition) in *Monthly Information*.

JAPANESE INDUSTRIAL STANDARD

J I S

Method of test for butt pressure welded joints

Z 3143-1996

1. Scope This Japanese Industrial Standard specifies the test method for the welded joints of members with the same cross section (hereafter referred to as "welded joints") to each other by the upset welding, the flash welding, the gas pressure welding, the friction welding or other butt pressure welding methods.

Remarks: The following standards are cited in this Standard.

JIS Z 2241 Method of tensile test for metallic materials

JIS Z 2244 Method of Vickers hardness test

JIS Z 3001 Welding terms

JIS Z 3121 Methods of tensile test for butt welded joints

JIS Z 3122 Methods of bend test for butt welded joint

2. Definitions For the purpose of this Standard, the definitions given in JIS Z 3001 apply.

3. Kind of test The kinds of the test shall be five consisting of appearance test, section macroscopic test, section hardness test, tensile test and bending test.

4. Test material and test piece

4.1 Preparation of test material The test material shall be prepared as follows.

- (1) Material The material to be used for the test material shall be equivalent to that to be used in manufacturing the practical product in terms of the material, the shape, the dimensions, the heat treatment condition, the property of the butt face, the surface condition, etc. As for the annular member, the test material shall be prepared as it has the annular part.
- (2) Welding facilities The welding facilities such as the power source, the welding apparatus to prepare the test material shall be the same as those to be used for manufacturing the practical products.
- (3) Welding conditions The welding conditions to prepare the test material shall be the same as those to be used in manufacturing the practical products.
- (4) Jigs, electrodes, etc. The welding jigs, the electrodes to be used in preparing the test material shall be the same as those to be used in the practical works.
- (5) Heat treatment When the material to be used in manufacturing the practical products is heat-treated after the welding, the test material shall also be heat-treated in the same manner.

4.2 Preparation of test piece The test piece shall be prepared as follows.

- (1) Appearance test piece Burrs or swellings generated in the welding shall not be removed for the appearance test piece, except those which are automatically removed during the welding.
- (2) Section macroscopic test piece and section hardness test piece The section



Documents
Document Sharing Hub