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**Stainless steel tubes for machine and
structural purposes**

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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 Iron and Steel Federation (JISF) 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 G 3446:2012** is replaced with this Standard.

However, **JIS G 3446: 2012** may be applied in the **JIS** mark certification based on the relevant provisions of Article 19 Clause 1, etc. of the Industrial Standardization Law until August 20, 2018.

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It should be noted that being in conformance with this Standard may come under the use of the patent rights held by the following:

Symbol of grade	Title of invention	Patent number	Registration date of establishment of patent right
SUS821L1TKA	Alloy-saving duplex stainless steel having excellent corrosion resistance and toughness in weld heat-affected zone	5345070	August 23, 2013

The relevant holders of the above-mentioned patent rights have indicated an intention of granting license to anyone under the nondiscriminatory and reasonable conditions, except to the other relevant holders of the patent rights related to this Standard who will not grant their licenses under the same conditions.

It should be noted that following this Standard does not always refer to granting a free license.

There is the possibility that some parts of this Standard may conflict with patent rights other than mentioned above. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights.

The “patent rights” as mentioned here include patent right, application for a patent after opening to the public or utility model right.

Stainless steel tubes for machine and structural purposes

1 Scope

This Japanese Industrial Standard specifies the stainless steel tubes (hereafter referred to as tubes) used for machinery, automobiles, bicycles, furniture, apparatus, and other mechanical parts and structures.

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 G 0320 *Standard test method for heat analysis of steel products*

JIS G 0321 *Product analysis and its tolerance for wrought steel*

JIS G 0404 *Steel and steel products — General technical delivery requirements*

JIS G 0415 *Steel and steel products — Inspection documents*

JIS Z 2241 *Metallic materials — Tensile testing — Method of test at room temperature*

JIS Z 2243 *Brinell hardness test — Test method*

JIS Z 2244 *Vickers hardness test — Test method*

JIS Z 2245 *Rockwell hardness test — Test method*

JIS Z 8401 *Guide to the rounding of numbers*

3 Classification and symbols

The tubes shall be classified into 32 grades, and the symbols of grade and the symbols representing manufacturing process shall be as given in Table 1.

Table 1 Symbols of grade and symbols representing manufacturing process

Classification	Symbols of grade	Symbols representing manufacturing process		
		Welding process	Finishing process	Marking
Austenitic	SUS303TKA SUS304TKA SUS304LTKA SUS316TKA SUS316LTKA SUS321TKA SUS347TKA SUS304TKC ^{a)} SUS316TKC ^{a)}	Seamless : S Automatic arc welded : A Laser welded : L Electric resistance welded : E	Hot finished : H Cold finished : C As electric resistance welded : G Weld working finished : B	As given in 11 b) .