

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

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JIS H 4635 : 2012

(JIS/JSA)

**Titanium and titanium alloys — Welded  
pipes**

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ICS 77.120.50;77.150.50

Reference number : JIS H 4635 : 2012 (E)

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H 4635 : 2012

Date of Establishment: 1986-07-01

Date of Revision: 2012-04-20

Date of Public Notice in Official Gazette: 2012-04-20

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Non-Ferrous Metals

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JIS H 4635 : 2012, First English edition published in 2013-02

Translated and published by: Japanese Standards Association

4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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Printed in Japan

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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 Titanium Society (JTS)/Japanese Standards Association (JSA) 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 H 4635**:2006 is replaced with this Standard.

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# Titanium and titanium alloys — Welded pipes

## 1 Scope

This Japanese Industrial Standard specifies the titanium and titanium alloy welded pipes with a circular cross-section, intended for applications except for heat exchangers (hereafter referred to as “pipes”).

## 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 H 0321 *General rules for inspection of non-ferrous metal materials*
- JIS H 0515 *Eddy current inspection of titanium pipes and tubes*
- JIS H 0516 *Ultrasonic inspection of titanium pipes and tubes*
- JIS H 0517 *Differential pressure testing method of titanium welded tubes*
- JIS H 1610 *Titanium and titanium alloys — Sampling methods*
- JIS H 1612 *Methods for determination of nitrogen in titanium and titanium alloys*
- JIS H 1614 *Methods for determination of iron in titanium and titanium alloys*
- JIS H 1617 *Methods for determination of carbon in titanium and titanium alloys*
- JIS H 1619 *Titanium and titanium alloys — Determination of hydrogen content*
- JIS H 1620 *Methods for determination of oxygen in titanium and titanium alloys*
- JIS H 1621 *Methods for determination of palladium in titanium alloys*
- JIS H 1622 *Titanium alloys — Methods for determination of aluminium*
- JIS H 1624 *Titanium alloys — Method for determination of vanadium*
- JIS H 1630 *Method for atomic emission spectrometric analysis of titanium*
- JIS H 1631 *Titanium alloys — Method for X-ray fluorescence spectrometric analysis*
- JIS Z 2241 *Metallic materials — Tensile testing — Method of test at room temperature*

## 3 Terms and definitions

For the purpose of this Standard, the following terms and definitions apply.

### 3.1 low-temperature annealing

heat treatment in which annealing is performed at a temperature lower than that of full annealing in order to remove residual stress with strength retained