JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 3463 : 2019

(JISF)

Stainless steel tubes for boiler and heat exchanger

ICS 23.040.10;27.060.30;77.140.20;77.140.75

Reference number : **JIS G 3463** : **2019** (**E**)

Date of Establishment: 1962-03-01
Date of Revision: 2019-11-20
Date of Public Notice in Official Gazette: 2019-11-20
Investigated by: Japanese Industrial Standards Committee
Standards Board for ISO area
Technical Committee on Metal and Inorganic Materials

JIS G 3463:2019, First English edition published in 2020-04

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

AT

Contents

Page

Foreword

This Japanese Industrial Standard has been 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 a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS G 3463**:2012), which has been technically revised.

However, **JIS G 3463**:2012 may be applied in the **JIS** mark certification based on the relevant provisions of Article 30, paragraph (1), etc. of the Industrial Standardization Act until 19 November 2020.

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

Symbol of grade	Title of invention	Patent number	Registration date of establishment of patent right
SUS821L1TB	Alloy-saving duplex stainless steel having excellent corrosion resistance and toughness in weld heat affected zone	No. 5345070	23 August 2013

The holder/holders of this/these patent right/rights and other rights has/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 and other 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.

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

The “patent rights and other rights” as mentioned here include patent right, published patent application or utility model right.

NOTE Based on Article 9 of the Supplementary Provisions to the Unfair Competition Prevention Act etc., any submission of proposal, or employment of procedures such as deliberation by the Japanese Industrial Standards Committee under the previous Industrial Standardization Act shall be deemed to have been conducted pursuant to the provision of Article 12, paragraph (1) of the revised Industrial Standardization Act.

Blank

Stainless steel tubes for boiler and heat exchanger

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 9329-4**:1997, Edition 1, and **ISO 9330-6**:1997, Edition 1, with some modifications of the technical contents.

In addition to the specification items in the main body, the supplementary quality requirements to be applied upon agreement between the purchaser and the manufacturer, and the requirements for U-bent tubes that are applied when specified by the purchaser, are given in Annex JA and Annex JB, respectively. The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standards. A list of modifications with the explanations is given in Annex JC.

1 Scope

This Standard specifies requirements for the stainless steel tubes (hereafter referred to as tubes) used for exchanging heat between the inside and outside of the tube, such as superheater tubes of boilers, and heat exchanger tubes, condenser tubes and catalyser tubes, etc. used in chemical and petroleum industries. It is not applicable to the steel tubes for fired heater.

This Standard is generally applicable to tubes of outside diameters 15.9 mm to 139.8 mm.

NOTE The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 9329-4:1997 *Seamless steel tubes for pressure purposes—Technical delivery conditions—Part 4: Austenitic stainless steels*

ISO 9330-6:1997 *Welded steel tubes for pressure purposes—Technical delivery conditions—Part 6: Longitudinally welded austenitic stainless steel tubes* (overall evaluation: MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

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 G 0551 *Steels—Micrographic determination of the apparent grain size*