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**Alloy steel tubes for boiler and heat  
exchanger**

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In the event of any doubts arising as to the contents,  
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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 3462:2011** is replaced with this Standard.

However, **JIS G 3462:2011** 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 May 19, 2015.

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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.

# Alloy steel tubes for boiler and heat exchanger

## Introduction

This Japanese Industrial Standard has been prepared based on the first editions of **ISO 9329-2** and **ISO 9330-2** published in 1997 with some modifications of the technical contents.

The portions with continuous sidelines or dotted underlines are the matters in which the contents of the corresponding International Standards have been modified. A list of modifications with the explanations is given in Annex JC.

## 1 Scope

This Standard specifies the alloy steel tubes (hereafter referred to as "tubes") used for exchanging heat between the inside and outside of the tube, such as water tubes, smoke tubes, superheater tubes and air preheater tubes of boilers and heat exchanger tubes, condenser tubes and catalyst tubes used in chemical and petroleum industries. It is not applicable to the steel tubes for heating furnace and steel heat exchanger tubes for low temperature service.

This Standard applies to tubes with an outside diameter of 15.9 mm to 139.8 mm.

With the previous agreement of the manufacturer, the purchaser may designate the special quality requirements and designate U-bend tubes to be applied, given in Annex JA and Annex JB, respectively in addition to the requirements specified in the text of this Standard.

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

ISO 9329-2 : 1997 *Seamless steel tubes for pressure purposes — Technical delivery conditions — Part 2 : Unalloyed and alloyed steels with specified elevated temperature properties*

ISO 9330-2 : 1997 *Welded steel tubes for pressure purposes — Technical delivery conditions — Part 2 : Electric resistance and induction welded unalloyed and alloyed steel tubes with specified elevated temperature properties* (overall evaluation : MOD)

The symbols which denote the degree of correspondence in the contents between the relevant International Standards 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.