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**Steel heat exchanger tubes for low
temperature service**

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In the event of any doubts arising as to the contents,
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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act in response to a proposal for revision of Japanese Industrial Standard with a draft being attached, submitted by The Japan Iron and Steel Federation (JISF), an accredited standards development organization. This edition replaces the previous edition (**JIS G 3464** : 2018), which has been technically revised.

However, **JIS G 3464** : 2018 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 December 2024.

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Steel heat exchanger tubes for low temperature service

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 9329-3** : 1997, Edition 1, and **ISO 9330-3** : 1997, Edition 1, with some modifications of the technical contents.

Annex JA and Annex JB are unique to **JIS** and not given in the corresponding International Standards. 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 steel tubes used for the purpose of exchanging the heat between the inside and the outside of tubes (hereafter referred to as tubes), such as heat exchanger tubes and condenser tubes, at exceptionally low temperatures of freezing point or under.

NOTE 1 This Standard is generally applicable to the tubes of 15.9 mm to 50.8 mm in outside diameter.

NOTE 2 **JIS G 3463** [1] specifies that austenitic stainless steel tubes may be used as the steel heat exchanger tubes for low temperature service.

NOTE 3 The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 9329-3 : 1997 *Seamless steel tubes for pressure purposes — Technical delivery conditions — Part 3 : Unalloyed and alloyed steels with specified low temperature properties*

ISO 9330-3 : 1997 *Welded steel tubes for pressure purposes — Technical delivery conditions — Part 3 : Electric resistance and induction welded unalloyed and alloyed steel tubes with specified low temperature properties* (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

Part or all of the provisions of the following standards, 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 0201 *Glossary of terms used in iron and steel (Heat treatment)*

JIS G 0202 *Glossary of terms used in iron and steel (Testing)*