

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

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**JIS H 5121** : 2016

(JFSinc/JSA)

**Copper alloy continuous castings**

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ICS 77.150.30

Reference number : JIS H 5121 : 2016 (E)

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H 5121 : 2016

Date of Establishment: 1997-07-20

Date of Revision: 2016-03-22

Date of Public Notice in Official Gazette: 2016-03-22

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Metal and Inorganic Materials

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JIS H 5121 : 2016, First English edition published in 2016-08

Translated and published by: Japanese Standards Association  
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 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 Japan Foundry Society, Inc. (JFSinc)/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 5121:2009** is replaced with this Standard.

This **JIS** document is protected by the Copyright Law.

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

- Name of invention : Lead free bronze alloy
- Date of registration of establishment : 2003-08-08
- Patent number : 3459623
- Patent holder: Kyowa Bronze Co., Ltd  
314 Sayamashinkaichi, Kumiyama-cho, Kuse-gun,  
Kyoto
- Name of invention : Copper-base alloy, and ingot and liquid contact parts using the alloy
- Date of registration of establishment : 2005-06-24
- Patent number : 3690746
- Patent holder: Kitz Corporation  
1-10-1 Nakase, Mihama-ku, Chiba-shi, Chiba
- Name of invention : Bronze alloy
- Date of registration of establishment : 2006-03-03
- Patent number : 3776441
- Patent holder: Kitz Corporation  
1-10-1 Nakase, Mihama-ku, Chiba-shi, Chiba
- Name of invention : Bronze alloy, and cast ingot and liquid contacting part each using the alloy
- Date of registration of establishment : 2006-07-21
- Patent number : 3830946
- Patent holder: Kitz Corporation  
1-10-1 Nakase, Mihama-ku, Chiba-shi, Chiba
- Name of invention : Copper alloy valve for drinking water
- Date of registration of establishment : 2006-09-08
- Patent number : 3850861
- Patent holder: Kitz Corporation  
1-10-1 Nakase, Mihama-ku, Chiba-shi, Chiba
- Name of invention : Lead-free copper alloy for casting having excellent pressure resistance
- Date of registration of establishment : 2007-05-18

- Patent holder: Shiga Valve Cooperative Association  
52 Oka-machi, Hikone-shi, Shiga  
: Shiga prefectural government  
4-1-1 Kyo-machi, Otsu-shi, Shiga
- Name of invention : Copper alloy series member for water supply
- Date of registration of establishment : 2007-04-20
- Patent number : 3946244
- Patent holder: KURIMOTO, Ltd.  
1-12-19 Kitahorie, Nishi-ku, Osaka-shi, Osaka
- Name of invention : Lead-free free-cutting copper alloy
- Date of registration of establishment : 2005-10-28
- Patent number : 3734372
- Patent holder: Mitsubishi Shindoh Co., LTD.  
4-7-35 Kita-shinagawa, Shinagawa-ku, Tokyo
- Name of invention : Free-cutting copper alloy
- Date of registration of establishment : 2007-02-16
- Patent number : 3917304
- Patent holder: Mitsubishi Shindoh Co., LTD.  
4-7-35 Kita-shinagawa, Shinagawa-ku, Tokyo
- Name of invention : Free-cutting copper alloy with super-low lead content
- Date of registration of establishment : 2012-03-16
- Patent number : 4951623
- Patent holder: Mitsubishi Shindoh Co., LTD.  
4-7-35 Kita-shinagawa, Shinagawa-ku, Tokyo
- Name of invention : Lead-free copper alloy for casting excellent in mechanical property
- Date of registration of establishment : 2013-08-09
- Patent number : 5335558
- Patent holder: Shiga Valve Cooperative Association  
52 Oka-machi, Hikone-shi, Shiga  
: BIWALITE Co., Ltd  
52 Oka-machi, Hikone-shi, Shiga  
: Shiga prefectural government  
4-1-1 Kyo-machi, Otsu-shi, Shiga
- Name of invention: Copper alloy for aqueduct member
- Date of registration of establishment : 2013-11-08
- Patent number : 5406405
- Patent holder: KURIMOTO, Ltd.  
1-12-19 Kitahorie, Nishi-ku, Osaka-shi, Osaka
- Name of invention : Lead-free free-cutting brass excellent in castability
- Date of registration of establishment : 2014-01-17

- Patent number : 5454144
- Patent holder : TOTO Ltd.  
2-1-1 Nakashima, Kokurakita-ku, Kitakyushu-shi,  
Fukuoka
- Name of invention : Brass metal for waterworks components
- Date of registration of establishment : 2014-04-18
- Patent number : 5522582
- Patent holder : KURIMOTO, Ltd.  
1-12-19 Kitahorie, Nishi-ku, Osaka-shi, Osaka
- Name of invention : Valve for drinking water
- Date of registration of establishment : 2010-02-12
- Patent number : 4455507
- Patent holder : Kitz Corporation  
1-10-1 Nakase, Mihama-ku, Chiba-shi, Chiba

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.

# Copper alloy continuous castings

## 1 Scope

This Japanese Industrial Standard specifies the copper alloy continuous castings (hereafter referred to as “continuous castings”) manufactured by continuous casting method.

## 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 B 0403 *Castings — System of dimensional tolerances and machining allowances*
- JIS H 0321 *General rules for inspection of non-ferrous metal materials*
- JIS H 1012 *General rules for chemical analysis of copper and copper alloys*
- JIS H 1051 *Copper and copper alloys — Determination of copper content*
- JIS H 1052 *Methods for determination of tin in copper and copper alloys*
- JIS H 1053 *Methods for determination of lead in copper and copper alloys*
- JIS H 1054 *Methods for determination of iron in copper and copper alloys*
- JIS H 1055 *Methods for determination of manganese in copper and copper alloys*
- JIS H 1056 *Methods for determination of nickel in copper and copper alloys*
- JIS H 1057 *Methods for determination of aluminium in copper and copper alloys*
- JIS H 1058 *Copper and copper alloys — Determination of phosphorus content*
- JIS H 1061 *Methods for determination of silicon in copper and copper alloys*
- JIS H 1062 *Methods for determination of zinc in copper and copper alloys*
- JIS H 1065 *Method for determination of selenium in copper and copper alloys*
- JIS H 1068 *Methods for determination of bismuth in copper and copper alloys*
- JIS H 1070 *Copper and copper alloys — Determination of sulfur content*
- JIS H 1072 *Methods for determination of antimony in copper and copper alloys*
- JIS H 1292 *Methods for X-ray fluorescence spectrometric analysis of copper alloys*
- JIS Z 2241 *Metallic materials — Tensile testing — Method of test at room temperature*
- JIS Z 2243 *Brinell hardness test — Test method*