



JAPANESE
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STANDARD

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JIS G 7821 : 2000

**Cast carbon steels for
general engineering purposes**

ICS 77.140.20; 77.140.80

Descriptors : unalloyed steels, cast steels, mechanical components, steels

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G 7821 : 2000

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law:

Cast carbon steels are the important materials that are used the largest quantity among various materials for general engineering purposes and are penetrated widely. This Standard has newly been prepared based on **ISO 3755** *Cast carbon steels for general engineering purposes* because existing **JIS G 5101** *Carbon steel castings* is difficult to conform to **ISO 3755** and, if conformance is done forcedly, the market will be confused.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Cast carbon steels for general engineering purposes

Introduction This Japanese Industrial Standard has been prepared based on the second edition of **ISO 3755** *Cast carbon steels for general engineering purposes*, published in 1991 without changing the technical contents.

In addition, this Standard intends to give the users information widely for the purpose of promoting popularization of the **ISO** Standard.

1 Scope

1.1 This Standard specifies requirements for eight grades of heat-treated cast carbon steels for general engineering purposes.

Four of the grades have a restricted chemical composition to ensure uniform weldability.

1.2 In cases where castings are produced by welding together component parts, this Standard does not cover the welding process or the properties of the weldment.

1.3 These grades are intended to be used at ambient temperature. However, properties at other temperatures may be agreed upon by using the supplementary requirements in **9.4.1** or **9.4.4** of **ISO 4990** : 1986.

2 Normative reference The following standard contains provisions which, through reference in this text, constitute provisions of this Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based to this Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below.

Members of **IEC** and **ISO** maintain registers of currently valid International Standards.

ISO 4990 : 1986 *Steel castings—General technical delivery requirements*

3 General delivery conditions Materials furnished according to this Standard shall conform to the applicable requirements of **ISO 4990**, including the supplementary requirements that are indicated in the enquiry and purchase order.

4 Heat treatment The type of heat-treatment is left to the discretion of the manufacturer, unless specifically agreed upon at the time of ordering.

5 Chemical requirements The steel shall conform to the chemical composition requirements given in table 1.