

JIS

JAPANESE INDUSTRIAL STANDARD

**Castings — System of
dimensional tolerances
and machining allowances**

JIS B 0403^{—1995}

Translated and Published

by

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**In the event of any doubt arising,
the original Standard in Japanese is to be final authority**

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Foreword as the Japanese Industrial Standard

This Japanese Industrial Standard consists of the part prepared by translating ISO 8062 (Castings — System of dimensional tolerances and machining allowances) published as the 2nd edition in 1994, and without changing the technical contents and rules for the drafting and presentation of standard, and Annexes 1 to 4 in which a part of the contents of the prescriptions of several Japanese Industrial Standards relating to the general tolerances of castings enforced by respective specification according to casting materials up to now.

Further, the portions between side lines in this Standard are the matters made modification in the prescribed contents of the original International Standard or the matters which are not included in the original International standard.

Introduction

This Standard relates to a system of tolerance grades and machining allowance grades for cast metals and their alloys.

The tolerance specified for a casting may determine the casting method. It is therefore recommended, before the design or the order is finalized, that the customer liaise with the foundry to discuss

- a) the proposed casting design and accuracy required;
- b) machining requirements;
- c) method of casting;
- d) the number of castings to be manufactured;
- e) the casting equipment involved;
- f) any special requirements, for instance, datum target systems, individual dimensional tolerances, geometrical tolerances, fillet radii tolerances and individual machining allowances;

Informative reference: As to the datum and datum target systems, refer to JIS B 0022 (Datums and datum-systems for geometrical tolerances).

- g) whether any other standard is more appropriate for the casting.

Because the dimensional accuracy of a casting is related to production factors, tolerance grades which can be achieved for various methods and metals are described in Annex A for

- a) long series and mass production, where development, adjustment and maintenance of casting equipment make it possible to achieve close tolerances;