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eqv ISO 8062-1994

Castings - System of dimensional tolerances and machining allowances

铸件 尺寸公差与机械加工余量

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Foreword

The technical content and format of this Standard are equivalent to ISO 8062:1994 "Castings - System of dimensional tolerances and machining allowances"; GB/T 6414-1986 "Dimensional tolerances of castings" and GB/T 11350-1989 "Machining allowances on castings" have been revised.

For pressure die castings, investment castings and metallic castings, ISO 8062:1994 does not specify their dimensional tolerance grades which can normally be expected. According to the practice of casting production in China, in Annex A of this Standard, it specifies pressure die castings, investment castings and metallic castings' dimensional tolerance grades which can normally be expected. The terms used in this Standard are defined according to China's relevant standards, rather than the definitions in ISO 8062:1994.

There are the following important differences between this Standard and GB/T 6414-1986 and GB/T 11350-1989:

- The relationship between machining allowances and dimensional tolerances is re-specified in ISO 8062:1994, i.e., replacing "required machining allowance" with "machining allowance of castings", which includes the lower deviation of castings' dimensional tolerances (the upper deviation of bore and cavity dimensions).
- ADD the tolerance values of CT1 and CT2; DELETE table 2, the tolerance values of the dimension range of 3 ~ 10 mm, in GB/T 6414-1986; CANCEL table 3 that is for further restrictions on mismatch.
- According to ISO 8062:1994 and actual test data, it modifies the tolerance grades which can normally be expected in long series and mass production of various types of alloy castings in Table A1 of Annex A.
- The required machining allowance of castings is determined by the largest overall dimension of finished castings after the final machining. For a casting, the required machining allowance values for the different machined surfaces are generally the same.

From the date of implementation, this Standard replaces GB/T 6414-1986 and GB/T 11350-1989.

Annexes A, B and C of this Standard are informative.

This Standard is proposed by State Administration of Machinery Industry.

This Standard is under the jurisdiction of National Technical Committee on Casting of Standardization Administration of China.

Drafting organizations of this Standard: Qi Shu Yan Institute of Locomotive and Rolling Stock Technology of Ministry of Railways, Shenyang Casting Research Institute, Changzhou Risheng Nonferrous Casting Co., Ltd.

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NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

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

GB/T 6414-1999

eqv ISO 8062-1994

Replacing GB/T 6414-1986, GB/T 11350-1989

1 Scope

This Standard specifies a system of tolerance grades and required machining allowance grades for the dimensions of castings.

This Standard is applicable to the dimensions of cast metals and their alloys produced by various casting manufacturing processes.

This Standard applies both to general tolerances and/or required machining allowances given on a drawing and to individual tolerances and/or required machining allowances which are shown immediately following a specific dimension.

The system specified applies when the foundry provides the pattern or die equipment or accepts responsibility for proving it.

2 Normative references

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

ISO 1302:1992 Technical drawings - Method of indicating surface texture

Annex C

(informative)

Bibliography

- [1] ISO 1101:1983 Technical drawings - Geometrical tolerancing - Tolerancing of form, orientation, location and run-out - Generalities, definitions, symbols, indications on drawings
- [2] ISO 5459:1981 Technical drawings - Geometrical tolerancing - Datums and datum-systems for geometrical tolerances
- [3] ISO 10135- 1994 Technical drawings - Simplified representation of moulded, cast and forged parts

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