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Cylindrical gears — ISO system of accuracy —

Part 2:

Definitions and allowable values of deviations
relevant to radial composite deviations and
runout information

Engrenages cylindriques — Système ISO de précision —

*Partie 2: Définitions et valeurs admissibles des écarts composés radiaux et
information sur le faux-rond*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 1328-2 was prepared by Technical Committee ISO/TC 60, *Gears*.

ISO 1328 consists of the following parts, under the general title *Cylindrical gears - ISO system of accuracy*

- *Part 1: Definitions and allowable values of deviations relevant to corresponding flanks of gear teeth*
- *Part 2: Definitions and allowable values of deviations relevant to radial composite deviations and runout information*

Annexes A, B and C of this part of ISO 1328 are for information only.

Introduction

Together with definitions and allowable values of gear element deviations, ISO 1328:1975 also provided advice on appropriate inspection methods.

In the course of revising ISO 1328:1975 and taking into account several important aspects, it was agreed that the description and advice on gear inspection methods would be published separately, and that, together with parts 1 and 2 of ISO 1328, a system of standards and technical reports (listed in clause 2 and annex C) should be established.

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Cylindrical gears — ISO system of accuracy —

Part 2:

Definitions and allowable values of deviations relevant to radial composite deviations and runout information

1 Scope

This part of ISO 1328 establishes a system of accuracy relevant to radial composite deviations of individual cylindrical involute gears. It specifies the appropriate definitions of gear tooth accuracy terms, the structure of the gear accuracy system and the allowable values of the above mentioned deviations.

The radial measurement accuracy system has different grade ranges than elemental ranges in ISO 1328-1. The diameter and module ranges for radial composite deviations and runout are also different.

The radial composite accuracy system comprises 9 accuracy grades for F_i'' or f_i'' of which grade 4 is the highest and grade 12 is the lowest. The module range extends from 0,2 mm to 10 mm and the diameter range from 5,0 mm to 1 000 mm, see clauses 6 and 7. Annex A gives tables based on the formulae in clause 7.

Runout is defined in annex B and values are not given in the standard for determining accuracy grade 5. Annex B provides information on runout for use if agreed upon between purchaser and manufacturer.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions, of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 701:1976, *International gear notation — Symbols for geometrical data*.

ISO 1122-1:1983, *Glossary of gear terms — Part 1: Geometrical definitions*.

ISO 1328-1:1995, *Cylindrical gears — ISO System of accuracy — Part 1: Definitions and allowable values of deviations relevant to corresponding flanks of gear teeth*.

ISO/TR 10064-2:1996, *Cylindrical gears — Code of inspection practice — Part 2: Inspection related to radial composite deviations, runout, tooth thickness and backlash*.

3 Definitions

For the purposes of this part of ISO 1328, the definitions given in ISO 1122-1 apply.