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Second edition
2013-09-01

Cylindrical gears — ISO system of flank tolerance classification —

Part 1: Definitions and allowable values of deviations relevant to flanks of gear teeth

Engrenages cylindriques — Système ISO de classification des tolérances sur flancs —

Partie 1: Définitions et valeurs admissibles des écarts pour les flancs de la denture



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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 1328-1 was prepared by Technical Committee ISO/TC 60, *Gears*.

This second edition cancels and replaces the first edition (ISO 1328-1:1995), which has been technically revised. In particular, the following are the major changes:

- the scope of applicability has been expanded;
- revisions have been made to the formulae which define the flank tolerances;
- annexes have been added to describe additional methods for analysis of modified profiles and helices;
- the evaluation of runout, previously handled in ISO 1328-2, has been brought back into this part of ISO 1328.

ISO 1328 consists of the following parts, under the general title *Cylindrical gears — ISO system of flank tolerance classification*:

- *Part 1: Definitions and allowable values of deviations relevant to flanks of gear teeth*
- *Part 2: Definitions and allowable values of deviations relevant to radial composite deviations and runout information¹⁾*

1) It is intended that, upon revision, the main element of the title of Part 2 will be aligned with the main element of the title of Part 1.

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Introduction

ISO 1328:1975 (third edition, withdrawn) included definitions and allowable values of gear element deviations, along with advice on appropriate inspection methods.

The first edition of this part of ISO 1328 retained the definitions and allowable values for gear flank deviations (single pitch, cumulative pitch, total cumulative pitch, total profile and total helix), while the advice on appropriate inspection methods was given in ISO/TR 10064-1 (listed in [Clause 2](#)).