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Plain bearings — Tolerances —

Part 1: Fits

Paliers lisses — Tolérances —

Partie 1: Ajustements

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Symbols **1**
5 System of fits **2**
6 Mean relative bearing clearance **2**
7 Tolerance intervals **2**
7.1 Tolerance 2
7.2 Fundamental deviation 2
7.3 Number 3
7.4 Symbol 3
8 Ranges of nominal dimensions **3**
9 Limit deviations **3**
10 Minimum and maximum clearances **3**
11 Example of shaft fit dimension indications **3**
12 Limit deviations and tolerance intervals **3**
Bibliography **9**

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 123, *Plain bearings*, Subcommittee SC 3, *Dimensions, tolerances and construction details.*

This third edition cancels and replaces the second edition (ISO 12129-1:2019), which has been technically revised.

The main changes are as follows:

— Clause 4 “Symbols” has been added;

— Table 1 and Table 2 have been added, and the previous Table 1 and Table 2 have been renumbered Table 3 and Table 4;

— Table 3 and Table 4 have been corrected.

A list of all parts in the ISO 12129 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document has been established because it is not possible to use the ISO deviations given in ISO 286-1 and ISO 286-2 to develop clearance fits which correspond to the requirements of plain bearing engineering for approximately uniform mean relative bearing clearances for all nominal size ranges.

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Plain bearings — Tolerances —

Part 1: Fits

1 Scope

This document specifies a system of fits applicable to metallic plain bearings used in general engineering for mean relative bearing clearances, ψ_m, of 0,56 ‰ up to 3,15 ‰. Other clearance ranges can be used depending upon the requirements in specific applications.

This system of fits is not applicable to half-bearings and bushes which, due to their special characteristics, are not measured by diameter but by wall thickness, and which are dimensionally changed on assembly. It is not applicable to profile bore or tilting pad bearings, or to cases where specific tolerances have been established by consideration of the bearing performance at both extremes of clearance.

This document is applicable preferably to bearings in rotating machines or transmissions, but it can be used similarly in other ranges of application.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Symbols

For the purposes of this documents, the symbols and indices given in Tables 1 and 2, respectively, apply.

Table 1 — Symbols

Symbol	Description	Unit
C	Bearing clearance	µm
C^*	Alternative symbol for ψ	‰
D	Nominal dimension	mm
ψ	Relative bearing clearance	‰

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