
Rolling bearings — Internal clearance —

Part 2:

**Axial internal clearance for
four-point-contact ball bearings**

Roulements — Jeu interne —

Partie 2: Jeu interne axial pour roulements à billes à quatre points de contact



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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

Published in Switzerland

Foreword

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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 5753-2 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*, Subcommittee SC 4, *Tolerances*.

ISO 5753 consists of the following parts, under the general title *Rolling bearings — Internal clearance*:

- *Part 1: Radial internal clearance for radial bearings*
- *Part 2: Axial internal clearance for four-point-contact ball bearings*

Introduction

Four-point-contact ball bearings are radial single-row angular contact ball bearings with raceways that are designed to support axial loads in both directions.

The axial clearance values apply to bearings supporting pure axial load in both directions, which are not mounted or preloaded and are not being subjected to any external load (i.e. with no measuring load being applied).

Depending on the design of the bearing and verification method, some dispersion of the results of measurements can be experienced due to verification uncertainties. Manufacturers and users are expected to take this into consideration.

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Rolling bearings — Internal clearance —

Part 2:

Axial internal clearance for four-point-contact ball bearings

1 Scope

This part of ISO 5753 specifies values of axial internal clearance for four-point-contact ball bearings with contact angle of 35°.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1132-1:2000, *Rolling bearings — Tolerances — Part 1: Terms and definitions*

ISO 5593, *Rolling bearings — Vocabulary*

ISO 15241, *Rolling bearings — Symbols for quantities*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1132-1, ISO 5593 and the following apply.

NOTE For the convenience of users of this part of ISO 5753, the following definitions are reproduced.

3.1

axial internal clearance

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(bearing capable of taking axial load in both directions, non-preloaded) arithmetical mean of the axial distances through which one of the rings may be displaced relative to the other, from one axial extreme position to the opposite extreme position, without being subjected to any external load

NOTE 1 The mean value includes displacements with the rings in different angular positions relative to each other and with the set of rolling elements in different angular positions in relation to the rings.

NOTE 2 For a measurement to be valid, at each limiting axial position of the rings in relation to each other, their relative radial position, and the position of the rolling elements relative to the raceways, shall be such that the one ring has actually assumed the extreme axial position in relation to the other ring.

[ISO 1132-1:2000, definition 8.2.1]