
**Rolling bearings — Steel cylindrical
rollers — Dimensions and tolerances**

Roulements — Rouleaux cylindriques en acier — Dimensions et tolérances



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Published in Switzerland

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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.

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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 12297 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*, Subcommittee SC 5, *Needle, cylindrical and spherical roller bearings*.

Rolling bearings — Steel cylindrical rollers — Dimensions and tolerances

1 Scope

This International Standard specifies requirements for finished steel cylindrical rollers for rolling bearings. The maximum roller diameter is 40 mm.

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 5593:1997, *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 and ISO 5593 and the following apply.

3.1

roller diameter

D_w

diameter value used for the general identification of roller diameter

[ISO 5593:1997, definition 05.05.01]

3.2

single roller diameter

D_{ws}

distance between two tangents to the actual surface of a roller parallel to each other and in a radial plane

NOTE Adapted from ISO 5593:1997, definition 05.05.02.

3.3

mean roller diameter in a single plane

D_{wmp}

arithmetical mean of the largest and the smallest of the single roller diameters in a single radial plane

[ISO 5593:1997, definition 05.05.03]

3.4

variation of mean roller diameter

$V_{D_{wmp}}$

difference between the largest and the smallest of the mean roller diameters measured in two radial planes in the cylindrical part of the roller arranged symmetrically to the middle of the roller