



**SLOVENSKI STANDARD**  
**SIST ISO 20516:2008**  
**01-julij-2008**

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Rolling bearings - Aligning thrust ball bearings and aligning seat washers - Boundary dimensions

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**ITeh STANDARD PREVIEW**

Roulements - Butées à billes sphériques et contreplaques sphériques - Dimensions d'encombrement

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Ta slovenski standard je istoveten z: **ISO 20516:2007**

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**ICS:**

21.100.20      Kotalni ležaji      Rolling bearings

**SIST ISO 20516:2008**

**en,fr**

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**Rolling bearings — Aligning thrust ball  
bearings and aligning seat washers —  
Boundary dimensions**

*Roulements — Butées à billes sphériques et contreplaques  
sphériques — Dimensions d'encombrement*

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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 20516 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*.

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# Rolling bearings — Aligning thrust ball bearings and aligning seat washers — Boundary dimensions

## 1 Scope

This International Standard specifies dimensions of single-direction and double-direction aligning thrust ball bearings with and without aligning seat washers.

## 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 582, *Rolling bearings — Chamfer dimensions — Maximum values*

ISO 5593, *Rolling bearings — Vocabulary*

ISO 15241, *Rolling bearings — Symbols for quantities*

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## 3 Terms and definitions

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

### 3.1

#### **aligning thrust ball bearing**

(single-direction bearing) thrust ball bearing which can accommodate permanent angular misalignment between its axis and the axis of its housing by means of an aligning housing washer

NOTE The spherical back face of the aligning housing washer mates with a matching concave spherical surface either in an aligning seat washer or its housing.

### 3.2

#### **aligning thrust ball bearing**

(double-direction bearing) thrust ball bearing which can accommodate permanent angular misalignment between its axis and the axis of its housing by means of aligning housing washers

NOTE The spherical back faces of the aligning housing washers mate with matching concave spherical surfaces either in aligning seat washers or their housings.

### 3.3

#### **single-direction aligning thrust ball bearing**

aligning thrust ball bearing intended to support axial load in one direction only

### 3.4

#### **double-direction aligning thrust ball bearing**

aligning thrust ball bearing intended to support axial load in both directions

3.5

**central shaft washer**

central washer which is intended to be mounted on a shaft

**4 Symbols**

For the purposes of this document, the symbols given in ISO 15241 and the following apply.

The symbols given in Figures 1 to 4 and the values given in Tables 1 to 6 denote nominal dimensions unless specified otherwise.

NOTE Unless specified otherwise, the symbols are applicable to both single-direction and double-direction bearings.

- A* centre height of aligning surface
- B* height of central shaft washer, double-direction bearing
- C* height of aligning seat washer
- D* outside diameter of aligning housing washer
- D*<sub>1</sub> bore diameter of aligning housing washer
- D*<sub>1s min</sub> smallest single bore diameter of aligning housing washer
- D*<sub>2</sub> bore diameter of aligning seat washer
- D*<sub>3</sub> outside diameter of aligning seat washer
- d* bore diameter of shaft washer, single-direction bearing
- d*<sub>1</sub> outside diameter of shaft washer, single-direction bearing
- d*<sub>1s max</sub> largest single outside diameter of shaft washer, single-direction bearing
- d*<sub>2</sub> bore diameter of central shaft washer, double-direction bearing
- d*<sub>3</sub> outside diameter of central shaft washer, double-direction bearing
- d*<sub>3s max</sub> largest single outside diameter of central shaft washer, double-direction bearing
- R* radius of aligning surface of aligning housing washer and aligning seat washer
- r* back face chamfer dimension of shaft washer, single-direction bearing and of aligning seat washer
- r*<sub>s min</sub> smallest single back face chamfer dimension of shaft washer, single-direction bearing and of aligning seat washer
- r*<sub>1</sub> face chamfer dimension of central shaft washer, double-direction bearing
- r*<sub>1s min</sub> smallest single face chamfer dimension of central shaft washer, double-direction bearing
- T* bearing height, single-direction aligning thrust ball bearing
- T*<sub>1</sub> bearing height, single-direction aligning thrust ball bearing with aligning seat washer
- T*<sub>2</sub> bearing height, double-direction aligning thrust ball bearing
- T*<sub>3</sub> bearing height, double-direction aligning thrust ball bearing with aligning seat washers

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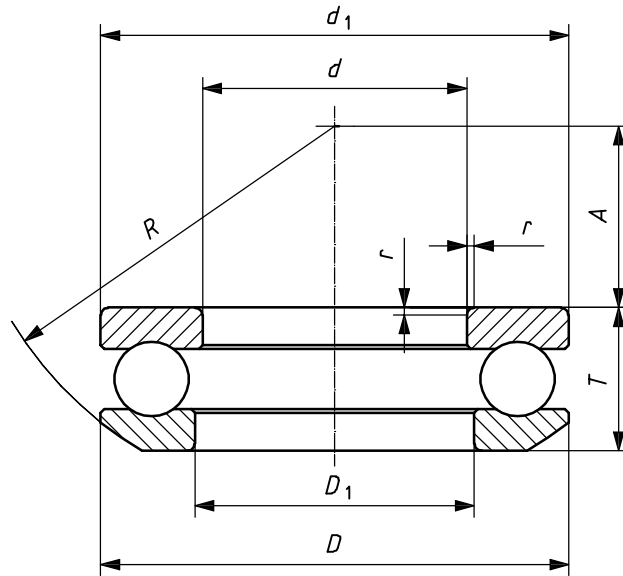


Figure 1 — Single-direction aligning thrust ball bearing

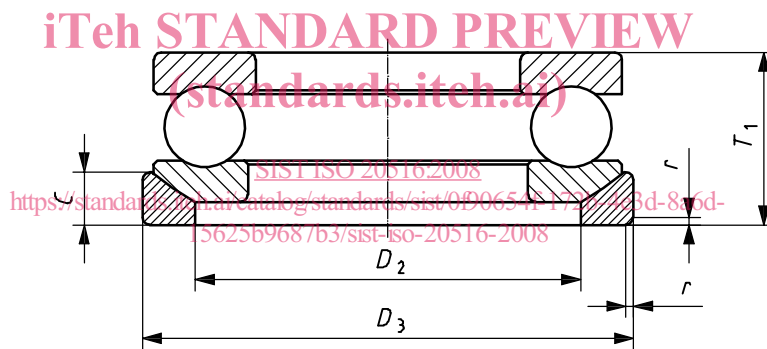


Figure 2 — Single-direction aligning thrust ball bearing with aligning seat washer