



JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

JIS B 1510 : 2024

(JBIA)

**Rolling bearings — Radial bearings, retaining slots —  
Dimensions, geometrical product specifications (GPS) and  
tolerance values**

Date of Establishment: 2010-03-23

Date of Revision: 2024-03-21

Date of Public Notice in Official Gazette: 2024-03-21

Investigated by: Japanese Industrial Standards Committee  
Standards Board for ISO area  
Technical Committee on Machine Elements

---

JIS B 1510 : 2024, First English edition published in 2025-03

Translated and published by: Japanese Standards Association  
Mita Avanti, 3-11-28, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

---

In the event of any doubts arising as to the contents,  
the original JIS is to be the final authority.

© JSA 2025

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

HN

## Contents

	Page
Introduction .....	1
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 Symbols .....	2
5 Dimensions .....	5
5.1 General .....	5
5.2 Single-row angular contact ball bearings and four-point-contact ball bearings .....	5
5.3 Radial cylindrical roller bearings .....	6
6 Limit values and tolerance values .....	8
6.1 General .....	8
6.2 Limit values and tolerance values for retaining slots .....	8
Annex A (informative) Example of drawing indications of characteristics with specification for retaining slot .....	10
Annex B (informative) Application example for a retaining slot .....	11
Annex JA (informative) Comparison table between JIS and corresponding International Standard .....	13

## Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Bearing Industry Association (JBIA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied *mutatis mutandis* pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS B 1510** : 2010), which has been technically revised.

This **JIS** document is protected by the Copyright Act.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

# Rolling bearings — Radial bearings, retaining slots — Dimensions, geometrical product specifications (GPS) and tolerance values

## Introduction

This Japanese Industrial Standard has been prepared based on **ISO 20515** : 2021, Edition 3, with some modifications of the technical contents to correct the standard structure.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

## 1 Scope

This Standard specifies dimensions, limit values and tolerance values of retaining slots to be used for outer rings of single-row angular contact ball bearings, four-point-contact ball bearings and radial cylindrical roller bearings.

The retaining slots are not suitable for use in the outer rings of sealed and shielded radial ball bearings, nor in the outer rings of radial cylindrical roller bearings without ribs.

**NOTE** The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 20515 : 2021 *Rolling bearings — Radial bearings, retaining slots — Dimensions, geometrical product specifications (GPS) and tolerance values* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

## 2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. For standards with the year indication, only the editions of the indicated year shall be applied and the revisions (including amendments) made thereafter shall not be applied. For those without the indication of the year, the most recent editions (including amendments) shall be applied.

JIS B 0024 *Geometrical product specifications (GPS) — Fundamentals — Concepts, principles and rules*

**NOTE** Normative reference in the corresponding International Standard: ISO 8015 *Geometrical product specifications (GPS) — Fundamentals —*