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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 19673.1-2025

Replacing GB/T 19673.1-2013

**Rolling bearings - Accessories for sleeve type linear ball
bearings - Part 1: Boundary dimensions??geometrical product
specifications (GPS) and tolerances for series 1 and 3**

滚动轴承 套筒型直线球轴承附件 第1部分：1、3系列外形尺寸、产品几何技术规
范（GPS）和公差

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 1 of GB/T 19673 "Rolling Bearings - Sleeve Type Linear Ball Bearings - Accessories". GB/T 19673 has been published.

The following parts were included.

---Part 1: Dimensions, Geometric Specifications (GPS), and Tolerances for Series 1 and 3;

---Part 2.5 Series Dimensions, Product Geometry Specifications (GPS) and Tolerances this document replaces GB/T 19673.1-2013 "Rolling Bearings - Sleeve Type Linear Ball Bearings - Accessories - Part 1: Series 1 and 3 - External Shapes".

Compared with GB/T 19673.1-2013, the main technical changes in "Dimensions and Tolerances" are as follows, except for structural adjustments and editorial modifications.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2013 edition);
- b) The application of the GPS system has been added, and some symbols and tolerance markings have been changed (see Chapters 4-9 in the 2013 edition).

Chapter 9);

- c) Increased positional tolerances for bearing housing holes, threaded holes or mounting holes, and shaft centerlines (see Tables 2, 4, 6, 8, and 10).

Tables 12, 14, 16 and 18);

- d) The external dimensions and tolerances for bearing accessories with Fw of 35mm have been removed (see Tables 2, 3, 6-8 in the 2013 edition).

Table 19) and the distance L1 from the end face to the center line of the seat hole (see Tables 4 and 5 in the 2013 edition);

e) Change the roundness and cylindricity in the geometric tolerances of the shaft to Vdsp and Vdmp (see 8.3.2, 2013 version of 8.3.2).

This document is equivalent to ISO 13012-1:2018 "Rolling bearings - Sleeve type linear ball bearings - Accessories - Part 1: Series 1, 3 - External shape".

Dimensions, product geometry specifications (GPS), and tolerances.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Rolling Bearings (SAC/TC98).

Introduction

This document specifies the geometric elements of mechanical parts as defined in the Product Geometry Specification (GPS) system (see ISO 14638[9] matrix model) standard.

Unless otherwise specified, the basic principles of ISO/GPS given in ISO 8015[5] apply to this document, and the principles given in ISO 14253-1[6] apply to this document.

The default principle applies to the technical specifications developed in accordance with this document.

The relationship between functional requirements and measurement methods and measurement uncertainty should be considered, and attention should be paid to measurement uncertainty.

ISO 14253-2[7].

By correctly selecting the bearing housing, shaft, shaft support block, and shaft support guide rail, the use of sleeve-type linear ball bearings can be made more convenient.

The above-mentioned bearing accessories help sleeve-type linear ball bearings achieve the required smooth, precise, and low-friction linear motion during use without...

Tremors or crawling may occur.

The correct selection of bearing housing type, shaft, and shaft support components should be determined through consultation between the manufacturer and the user.

GB/T 19673 "Rolling Bearing Sleeve Type Linear Ball Bearing Accessories" consists of two parts.

---Part 1: Dimensions, Product Geometry Specifications (GPS), and Tolerances for Series 1

and 3. This section aims to specify the dimensions, product geometry specifications (GPS), and tolerances for sleeve-type linear ball bearings.

The dimensions and tolerances of the 1st and 3rd series accessories provide guidance for product selection.

---Part 2.5 Series External Dimensions, Product Geometry Specifications (GPS), and Tolerances. This section aims to specify the dimensions, geometric specifications (GPS), and tolerances for sleeve-type linear ball bearings.

The dimensions and tolerances of the 5 series accessories provide guidance for product selection.

Rolling bearing sleeve type linear ball bearing accessories Part 1: Dimensions and Geometry of Series 1 and 3 Technical Specifications (GPS) and Tolerances

1 Scope

This document specifies the external dimensions, other relevant dimensions, and tolerances of accessories for sleeve-type linear ball bearings conforming to ISO 10285.

This document applies to.

---The following seats.

- Enclosed flangeless seats and adjustable flangeless seats for Series 1 sleeve-type linear ball bearings;
- Enclosed flange seats and adjustable flange seats for 3-series sleeve-type linear ball bearings;
- Open flange housing for 3-series sleeve-type linear ball bearings;
- Enclosed flangeless seats and adjustable flangeless seats for 3-series sleeve-type linear ball bearings;
- Open flangeless seats and open adjustable flangeless seats for 3 series sleeve type linear ball bearings.

---The following shaft-supported guide rails.

- Standard center high shaft support guide for 3 series sleeve type linear ball bearings;
- Low center high shaft support guide for 3 series sleeve type linear ball bearings.

---The following shaft support blocks.

- Flanged shaft support blocks for 1 and 3 series sleeve-type linear ball bearings;
- Flangeless shaft support blocks for 1 and 3 series sleeve-type linear ball bearings.

--- Solid and hollow shafts for use in 1 and 3 series sleeve-type linear ball bearings.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

ISO 1132-1 Rolling bearings - Tolerances - Part 1: Terms and definitions Note. GB/T 4199-2003 Definition of Tolerances for Rolling Bearings (ISO 1132-1:2000, MOD) ISO 5593 Rolling Bearings Vocabulary Note. GB/T 6930-2024 Rolling Bearings Vocabulary (ISO 5593:2023, IDT) ISO 10285 Dimensions and tolerances of rolling bearings - sleeve type linear ball bearings Note. GB/T 16940-2012 Dimensions and tolerances of rolling bearings, sleeve type linear ball bearings (ISO 10285:2007, IDT) Note. GB/T 7811-2015 Symbols for rolling bearing parameters (ISO 15241:2012, IDT) (enhanced layers)