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Plain bearings — Sintered bushes — Dimensions and tolerances

Paliers lisses — Coussinets frittés — Dimensions et tolérances

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 123, *Plain bearings*, Subcommittee SC 7, *Special types of plain bearings*.

This sixth edition cancels and replaces the fifth edition (ISO 2795:2014), of which it constitutes a minor revision.

The main changes compared to the previous edition are as follows:

— Clause 3 has been added;

— all figures have been reviewed;

— titles of figures and tables have been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The sizes given in this document are based on a range of shaft diameters which are considered to correspond to the requirements of industry. For all except the smallest sizes, a thin-wall series is provided in addition to the normal series in order to introduce an element of choice and, more importantly, to provide for the possibility of the same sizes being adopted for plain bearings made from other materials.

It is envisaged that as far as possible, the same outside diameters will be recommended for all types of plain bearings.

Plain bearings — Sintered bushes — Dimensions and tolerances

1 Scope

This document specifies the dimensions and tolerances applicable to sintered bearings for the following ranges of inside diameters:

— cylindrical bearings: 1 mm to 60 mm;

— flanged bearings: 1 mm to 60 mm;

— spherical bearings: 1 mm to 20 mm.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 5755, *Sintered metal materials — Specifications*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Material

Materials used for manufacturing sintered bearings shall conform to ISO 5755.

5 Cylindrical bearings

5.1 Dimensions

Dimensions for cylindrical bearings are shown in Figure 1, Table 1 and Table 2.

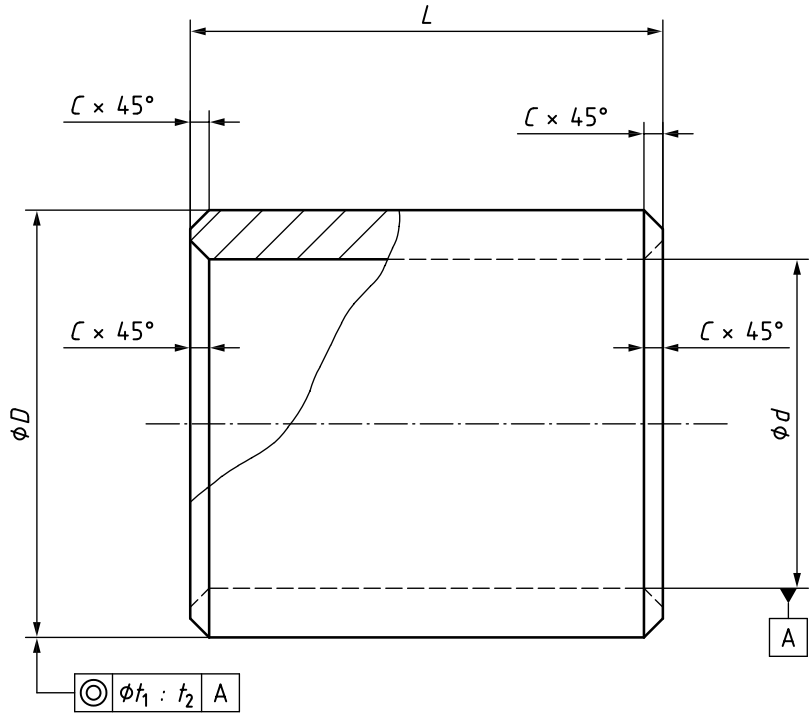

Figure 1 — Cylindrical bearing

Table 1 — Preferred nominal dimensions for cylindrical bearings

Dimensions in millimetres

Inside diameter *d*	Outside diameter *D*		Length *L*
	Normal series	Thin-wall series[a]	
1	3	—	1–2
1,5	4	—	1–2
2	5	—	2–3
2,5	6	—	2–3
3	6	5	3–4
4	8	7	3–4–6
5	9	8	4–5–8
6	10	9	4–6–10
7	11	10	5–8–10
8	12	11	6–8–12
9	14	12	6–10–14
10	16	14	8–10–16
12	18	16	8–12–20
14	20	18	10–14–20
15	21	19	10–15–25
16	22	20	12–16–25
18	24	22	12–18–30

[a] For inside diameter 20 mm (included), the last value for the length is not applicable to the thin-wall series.

[b] Dimensions in parentheses shall be used as “second choice”.

Table 1 *(continued)*

Inside diameter *d*	Outside diameter *D*		Length *L*
	Normal series	Thin-wall series[a]	
20	26	25	15–20–25–30
22	28	27	15–20–25–30
25	32	30	20–25–30–35
28	36	33 (34)[b]	20–25–30–40
30	38	35 (36)[b]	20–25–30–40
32	40	38	20–25–30–40
35	45	41	25–35–40–50
38	48	44	25–35–45–55
40	50	46	30–40–50–60
42	52	48	30–40–50–60
45	55	51	35–45–55–65
48	58	55	35–50–70
50	60	58	35–50–70
55	65	63	40–55–70
60	72	68	50–60–70

[a] For inside diameter 20 mm (included), the last value for the length is not applicable to the thin-wall series.

[b] Dimensions in parentheses shall be used as "second choice".

Table 2 — Chamfers

Dimensions in millimetres

Wall thickness $\frac{D-d}{2}$		Chamfer *C*
above	up to and incl.	max.
—	1	0,2
1	2	0,3
2	3	0,4
3	4	0,6
4	5	0,7
5	—	0,8

5.2 Tolerances

The tolerances for the bearings after fitting and the tolerances for the housing and insertion pin are given below. In addition, the tolerances for the inside and outside diameters of the bearings before fitting are given.

Since the actual tolerances and combinations of tolerances in the as-delivered state depend upon the characteristics of the materials and the manufacturing methods, they should be discussed with the manufacturer.