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**Rolling bearings — Single-row angular  
contact ball bearings — Chamfer  
dimensions for outer ring non-thrust  
side**

*Roulements — Roulements à billes à contact oblique à une rangée —  
Dimensions des arrondis des bagues côté non chargé*

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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.

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](http://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](http://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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 4, *Rolling bearings*, Subcommittee SC 12, *Ball bearings*.

This second edition cancels and replaces the first edition (ISO 12044:1995), which has been technically revised.

# Rolling bearings — Single-row angular contact ball bearings — Chamfer dimensions for outer ring non-thrust side

## 1 Scope

This International Standard specifies chamfer dimensions for outer ring, non-thrust side of single-row angular contact ball bearings, where the dimensions differ from those specified in ISO 15. It is applicable to bearings in the diameter series 9, 0, and 2 for contact angles, up to and including 30°, and in the diameter series 2 and 3 for contact angles over 30°.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5593, *Rolling bearings — Vocabulary*

ISO 15241, *Rolling bearings — Symbols for physical quantities*

## 3 Terms and definitions

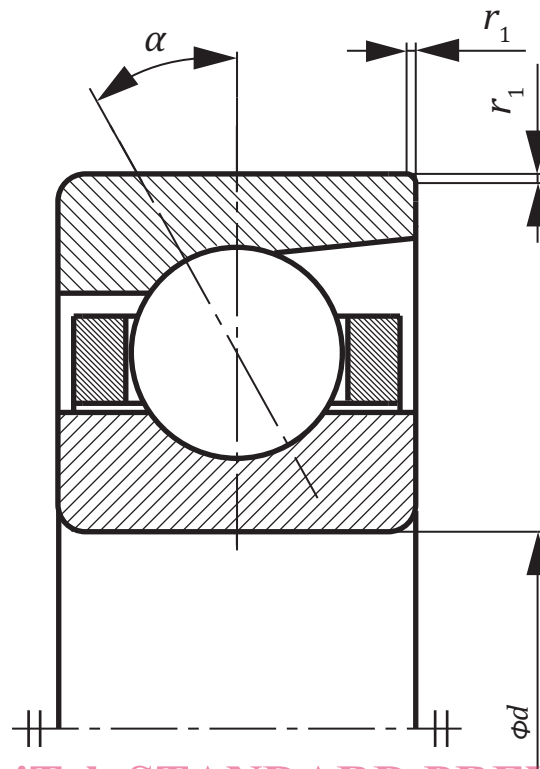
For the purposes of this document, the terms and definitions given in ISO 5593 apply.

## 4 Symbols

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

The symbols shown in [Figure 1](#) and the values given in [Table 1](#) denote nominal dimensions, unless specified otherwise.

$d$	bearing bore diameter
$r_1$	chamfer dimension of outer ring non-thrust side
$r_{1s \min}$	smallest single chamfer dimension of outer ring non-thrust side
$\alpha$	contact angle



NOTE 1 For tandem mounting, check that there is sufficient contact area between the mating ring faces.

NOTE 2 The figure shows an example of design.

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Figure 1 — Chamfer dimension for outer ring non-thrust side of single-row angular contact ball bearing  
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## 5 Chamfer dimensions

The chamfer dimensions for outer ring non-thrust side of single-row angular contact ball bearings are given in [Table 1](#).

Chamfer dimension,  $r_1$ , applies at the corner indicated in [Figure 1](#) and specified with  $r_{1s \min}$  in [Table 1](#). See ISO 582[2] for the corresponding largest single chamfer dimensions to the  $r_{1s \min}$  in [Table 1](#).

**Table 1 — Chamfer dimensions**

Dimensions in millimetres

d	$r_{1s \min}$				
	Diameter series			Diameter series	
	9	0	2	2	3
$\alpha \leq 30^\circ$			$\alpha > 30^\circ$		
8	0,1	0,1	0,15	0,15	0,15
9	0,1	0,1	0,15	0,15	0,3
10	0,1	0,1	0,3	0,3	0,3
12	0,1	0,1	0,3	0,3	0,6
15	0,1	0,1	0,3	0,3	0,6

Table 1 (continued)

<i>d</i>	<i>r</i> <sub>1s min</sub>				
	Diameter series			Diameter series	
	9	0	2	2	3
	$\alpha \leq 30^\circ$			$\alpha > 30^\circ$	
17	0,1	0,1	0,3	0,6	0,6
20	0,15	0,3	0,3	0,6	0,6
25	0,15	0,3	0,3	0,6	0,6
30	0,15	0,3	0,3	0,6	0,6
35	0,15	0,3	0,3	0,6	1
40	0,15	0,3	0,6	0,6	1
45	0,15	0,3	0,6	0,6	1
50	0,15	0,3	0,6	0,6	1
55	0,3	0,6	0,6	1	1
60	0,3	0,6	0,6	1	1,1
65	0,3	0,6	0,6	1	1,1
70	0,3	0,6	0,6	1	1,1
75	0,3	0,6	0,6	1	1,1
80	0,3	0,6	1	1	1,1
85	0,6	0,6	1	1	1,1
90	0,6	0,6	1	1	1,1
95	0,6	0,6	1,1	1,1	1,1
100	0,6	0,6	1,1	1,1	1,1
105	0,6	1	1,1	1,1	1,1
110	0,6	1	1,1	1,1	1,1
120	0,6	1	1,1	1,1	1,1
130	0,6	1	1,1	1,1	1,5
140	0,6	1	1,1	1,1	1,5
150	1	1	1,1	1,1	1,5
160	1	1	1,1	1,1	1,5
170	1	1,1	1,5	1,5	1,5
180	1	1,1	1,5	1,5	2
190	1	1,1	1,5	1,5	2
200	1	1,1	1,5	1,5	2
220	1	1,1	1,5	1,5	2
240	1	1,1	1,5	1,5	2

## Bibliography

- [1] ISO 15, *Rolling bearings — Radial bearings — Boundary dimensions, general plan*
- [2] ISO 582, *Rolling bearings — Chamfer dimensions — Maximum values*

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