

BS ISO 8443:2010

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BSI Standards Publication

Rolling bearings — Radial ball bearings with flanged outer ring — Flange dimensions

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National foreword

This British Standard is the UK implementation of ISO 8443:2010. It supersedes BS ISO 8443:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MCE/7, Rolling bearings.

A list of organizations represented on this committee can be obtained on request to its secretary.

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INTERNATIONAL STANDARD

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ISO
8443

Third edition
2010-07-01

Rolling bearings — Radial ball bearings with flanged outer ring — Flange dimensions

*Roulements — Roulements à billes avec bague extérieure à collet —
Dimensions de collet*



Reference number
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ISO 8443 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*.

This third edition cancels and replaces the second edition (ISO 8443:1999), of which it constitutes a minor revision, mainly incorporating updated references and terminology.

Rolling bearings — Radial ball bearings with flanged outer ring — Flange dimensions

1 Scope

This International Standard specifies flange dimensions of single-row radial ball bearings with flanged outer ring and single-row angular contact ball bearings with flanged outer ring. All other boundary dimensions for complete bearings are given in ISO 15.

Tolerances for the flanges are given in ISO 492. For instrument precision bearings, all tolerances are specified in ISO 1224-1.

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 15, *Rolling bearings — Radial bearings — Boundary dimensions, general plan*

ISO 492, *Rolling bearings — Radial bearings — Tolerances*

ISO 1224-1, *Rolling bearings — Instrument precision bearings — Part 1: Boundary dimensions, tolerances and characteristics of metric series bearings*

ISO 5593, *Rolling bearings — Vocabulary*

ISO 15241, *Rolling bearings — Symbols for quantities*

3 Terms and definitions

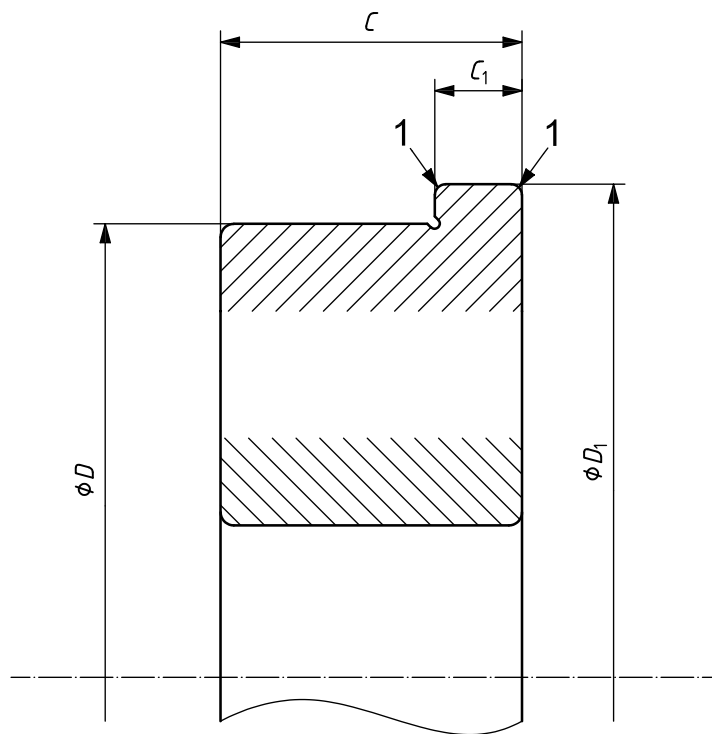
For the purposes of this document, the terms and definitions given in ISO 5593 apply.

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 Tables 1 to 4 denote nominal dimensions, unless specified otherwise.

C	outer ring width
C_1	outer ring flange width
D	outside diameter of outer ring
D_1	outside diameter of outer ring flange



Key

1 broken corners

Figure 1 — Bearing with flanged outer ring

5 Flange dimensions

Flange dimensions for single-row radial ball bearings with flanged outer ring and single-row angular contact ball bearings with flanged outer ring grouped by diameter series and dimension series in accordance with ISO 15 are given in Tables 1 to 4.

Table 1 — Diameter series 7

		Dimensions in millimetres	
<i>D</i>	<i>D</i> ₁	<i>C</i> ₁	
		Dimension series 17	
4	4,8	0,35	
5	6	0,4	
6	7,2	0,6	
7	8,2	0,6	
8	9,2	0,6	
10	11,2	0,6	
11	12,2	0,6	
12	13,2	0,6	
14	15,5	0,8	
15	16,5	0,8	

Table 2 — Diameter series 8

Dimensions in millimetres

<i>D</i>	<i>D</i> ₁	<i>C</i> ₁		
		Dimension series		
		18	28	38
2,5	3,3	0,3	—	—
3	3,8	0,3	—	0,45
4	5	0,4	—	0,6
5	6,1	0,5	—	0,6
6	7,1	0,5	—	0,8
7	8,1	0,5	—	0,8
9	10,3	0,6	1	1
11	12,5	0,8	1	1
13	15	1	1,1	1,1
14	16	1	1,1	1,1
16	18	1	1,1	1,3
17	19	1	1,1	1,3
19	21	1	1,3	1,5

Table 3 — Diameter series 9

Dimensions in millimetres

<i>D</i>	<i>D</i> ₁	<i>C</i> ₁	
		Dimension series	
		19	39
4	5	0,5	0,6
5	6,5	0,6	0,8
6	7,5	0,6	0,8
7	8,5	0,7	0,9
8	9,5	0,7	0,9
11	12,5	1	1,2
13	15	1	1,2
15	17	1,2	1,5
17	19	1,2	1,5
19	22	1,5	1,8
20	23	1,5	1,8
22	25	1,5	2

Table 4 — Diameter series 0, 2 and 3

Dimensions in millimetres

D	D ₁	C ₁	D ₁	C ₁	D ₁	C ₁
	Diameter series					
	0		2		3	
	Dimension series					
	10		02		03	
6	7,5	0,6	—	—	—	—
7	8,5	0,7	—	—	—	—
8	9,5	0,7	—	—	—	—
9	10,5	0,7	—	—	—	—
10	—	—	11,5	1	—	—
12	13,5	1	—	—	—	—
13	—	—	15	1	15	1
14	16	1	—	—	—	—
16	—	—	18	1	18	1
17	19	1,2	—	—	—	—
19	22	1,5	22	1,5	22	1,5
22	25	1,5	25	1,5	25	1,5
24	27	1,5	26	2	—	—
26	28	2	28	2	29	2
28	30	2	—	—	30,25	2,25
30	—	—	32,25	2,25	32,5	2,5
32	34,25	2,25	34,5	2,5	—	—
35	37,5	2,5	37,75	2,75	37,75	2,75
37	—	—	—	—	40	3
40	—	—	43	3	—	—
42	45	3	—	—	45	3
44	47	3	—	—	—	—
47	50	3	50,5	3,5	50,5	3,5
50	—	—	53,5	3,5	—	—
52	55	3	55,75	3,75	55,75	3,75
55	58,25	3,25	—	—	—	—
56	—	—	—	—	60	4
58	61,25	3,25	62	4	—	—
62	65,5	3,5	66	4	66	4
65	—	—	69,25	4,25	—	—

Table 4 (continued)

Dimensions in millimetres

D	D ₁	C ₁	D ₁	C ₁	D ₁	C ₁
	Diameter series					
	0		2		3	
D	Dimension series					
	10		02		03	
68	71,75	3,75	—	—	72,25	4,25
72	—	—	76,25	4,25	76,5	4,5
75	79	4	—	—	79,5	4,5
80	84	4	84,5	4,5	85	5
85	—	—	89,75	4,75	—	—
90	94,5	4,5	95	5	95	5
95	99,5	4,5	—	—	—	—
100	104,5	4,5	105,5	5,5	105,5	5,5
110	115	5	115,5	5,5	115,5	5,5
115	120	5	—	—	—	—
120	—	—	126	6	126	6
125	130,5	5,5	131	6	—	—
130	135,5	5,5	136,5	6,5	136,5	6,5
140	146	6	146,5	6,5	147	7
145	151	6	—	—	—	—
150	156	6	157	7	157,5	7,5
160	166,5	6,5	167,5	7,5	167,5	7,5
170	177	7	178	8	178,5	8,5
180	187	7	188,5	8,5	188,5	8,5
190	—	—	199	9	199	9
200	208,5	8,5	209,5	9,5	209,5	9,5
210	218,5	8,5	—	—	—	—
215	—	—	225	10	225	10
225	234	9	—	—	236	11
230	—	—	240	10	—	—
240	249,5	9,5	—	—	251	11
250	—	—	261	11	—	—
260	270,5	10,5	—	—	272	12
270	—	—	282	12	—	—
280	291,5	11,5	—	—	294	14

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