## INTERNATIONAL STANDARD

**ISO** 9628

Second edition 2006-04-01

Corrected version 2007-02-01

**AMENDMENT 1** 2011-03-01

# Rolling bearings — Insert bearings and eccentric locking collars — Boundary dimensions and tolerances —

**AMENDMENT 1: Diameter series 3** 

Roulements — Roulements «insert» et bagues de blocage excentriques — Dimensions d'encombrement et tolérances —

AMENDEMENT 1: Série de diamètres 3



#### PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below



#### COPYRIGHT PROTECTED DOCUMENT

#### © ISO 2011

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 either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org

Published in Switzerland

#### **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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

Amendment 1 to ISO 9628:2006 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*, Subcommittee SC 6, *Insert bearings and accessories*.

### Rolling bearings — Insert bearings and eccentric locking collars — Boundary dimensions and tolerances —

#### **AMENDMENT 1: Diameter series 3**

Page 1, Normative references

Delete the date "1998" from ISO 15.

Page 1, Clause 4

In the second paragraph, replace "in Tables 1 to 8" with "in Tables 1 to 12".

Page 6, 5.3

Replace "to the diameter series 2 of ISO 15:1998" with "to either diameter series 2 or diameter series 3 of ISO 15".

Page 6, 5.4

In the first sentence of the first paragraph, replace "dimension series 02 of ISO 15:1998" with "dimension series 02 or dimension series 03 of ISO 15".

Page 6, 5.5

In the second sentence, replace "to dimension series 02 in ISO 15:1998" with "to either dimension series 02 or dimension series 03 of ISO 15".

Page 6, Clause 6

In the first sentence, replace "given in Tables 1 to 5" with "given in Tables 1 to 5, 9 and 10".

Page 17, Clause 7

In the first sentence, replace "given in Tables 6 and 7, respectively" with "given in Tables 6, 7 and 11".

Page 17, Clause 8

In the second paragraph, replace "given in Table 8" with "given in Tables 8 and 12".

Tables 1 to 8

At the end of the titles of Tables 1 to 8, add "- Diameter series 2".

Page 19 After Table 8, insert the following new Tables 9 to 12.

Table 9 — Insert bearings — Wide overall width — Axially extending eccentric locking collar — Diameter series 3 (see Figure 1)

d		D	B <sub>1</sub>	(S)	$S_1$	(	ya	$C_1^{b}$	$C_2^{b}$
			max.	,	max.	min.	max.	'	2
mm	in	mm	mm	mm	mm	m	m	mm	mm
25	_	62	46,8	16,7	30,1	17	24	5,6	3
30 30,162	— 1-3/16	72	50,2	17,5	32,7	19	26	6	3
31,75 33,338 34,925 35 36,512	1-1/4 1-5/16 1-3/8 — 1-7/16	80	51,6	18,3	33,3	21	28	6,7	3,5
38,1 40	1-1/2 —	90	57,2	19,8	37,4	23	30	7,5	4
41,275 42,862 44,45 45	1-5/8 1-11/16 1-3/4	100	58,7	19,8	38,9	25	33	8,3	4
47,625 49,212 50	1-7/8 1-15/16 —	110	66,7	24,6	42,1	27	35	9,5	4,5
50,8 52,388 55	2 2-1/16 —	120	73	27,8	45,2	29	37	10,3	5
60 61,912	— 2-7/16	130	79,4	31	48,4	31	39	11,1	5
63,5 65	2-1/2 —	140	85,7	32,5	53,2	33	41	11,9	5,5
68,262 70	2-11/16 —	150	92,1	34,1	58	35	43	12,7	6
74,612 75 76,2	2-15/16 — 3	160	100	37,3	62,7	37	46	13,5	6

d		D	B <sub>1</sub>	(S)	$S_1$	$C^{a}$		C <sub>1</sub> <sup>b</sup>	$C_2^{b}$
			max.		max.	min.	max.		
mm	in	mm	mm	mm	mm	mm		mm	mm
80 80,962	— 3-3/16	170	106,4	40,5	65,9	39	48	14,3	6,5
85	_	180	109,5	42	67,5	41	50	15,1	7
87,312 90	3-7/16 —	190	115,9	42,1	73,8	43	52	15,9	7
95	_	200	122,3	38,9	83,4	45	54	16,7	7,5
100 100,012 101,6	— 3-15/16 4	215	129,6	50	79,6	47	58	18,3	8
105	_	225	139,7	48,4	91,3	49	60	19,1	8
110	_	240	141,3	49,2	92,1	50	62	20,6	8,5

The minimum and maximum widths are not tolerances; they indicate a range within which the nominal value shall fall.

The relubrication means in the outer ring, if used, shall be located on one or both sides of the outer ring zones defined by the dimensions  $C_1$  and  $C_2$  in such a way that lubricant satisfactorily feeds into the bearing from a housing bore groove covering the zone.

Table 10 — Insert bearings — Intermediate overall width — Locking device not axially extending — Diameter series 3 (see Figures 2 and 3)

	d	D	В	(S)	$S_1$	C	ra	$C_1^{b}$	$C_2^{b}$
			max.		max.	min.	max.		
mm	in	mm	mm	mm	mm	m	m	mm	mm
25	_	62	38	15	23	17	24	5,6	3
30 30,162	— 1-3/16	72	43	17	26	19	26	6	3
31,75 33,338 34,925 35 36,512	1-1/4 1-5/16 1-3/8 — 1-7/16	80	48	19	29	21	28	6,7	3,5
38,1 40	1-1/2 —	90	52	19	33	23	30	7,5	4
41,275 42,862 44,45 45	1-5/8 1-11/16 1-3/4	100	57	22	35	25	33	8,3	4
47, 625 49,212 50	1-7/8 1-15/16 —	110	61	22	39	27	35	9,5	4,5
50,8 52,388 55	2 2-1/16 —	120	66	25	41	29	37	10,3	5
60 61,912	— 2-7/16	130	71	26	45	31	39	11,1	5
63,5 65	2-1/2 —	140	75	30	45	33	41	11,9	5,5
68,262 70	2-11/16 —	150	78	33	45	35	43	12,7	6
74,612 75 76,2	2-15/16 — 3	160	82	32	50	37	46	13,5	6
80 80,962	— 3-3/16	170	86	34	52	39	48	14,3	6,5

Table 11 — Tolerances for bearings — Diameter series 3

	d	$\Delta_d$	$V_{d  extsf{sp}}$	
>	€	high	low	max.
m	nm	μ	μm	
24	30,162	+18	0	12
30,162	50	+21	0	14
50	80,962	+24	0	16
80,962	120	+28	0	19
120	140	+33	0	22

NOTE Tolerance values are applicable to finished bores, whether or not the bore is plated or treated.

<sup>&</sup>lt;sup>a</sup> The minimum and maximum widths are not tolerances; they indicate a range within which the nominal value shall fall.

The relubrication means in the outer ring, if used, shall be located on one or both sides of the outer ring zones defined by the dimensions  $C_1$  and  $C_2$  in such a way that lubricant satisfactorily feeds into the bearing from a housing bore groove covering the zone.

Table 12 — Radial internal clearances — Diameter series 3

d		D	Gro	ın N	Group 3		
u		D		1			
			min. max.		min. max.		
mm	in	mm	μm		μ	m	
25		62					
30 30,162	— 1-3/16	72	12	28	23	41	
31,75 33,338 34,925 35 36,512 38,1 40	1-1/4 1-5/16 1-3/8 — 1-7/16	80 90	13	33	28	46	
41,275 42,862 44,45 45	1-5/8 1-11/16 1-3/4 —	100	14	36	30	51	
47,625 49,212 50	1-7/8 1-15/16 —	110					
50,8 52,388 55	2 2-1/16 —	120					
60 61,912	— 2-7/16	130	18	43	38	61	
63,5 65	2-1/2 —	140					
68,262 70	2-11/16 —	150					
74,612 75 76,2	2-15/16 — 3	160	20	51	46	71	

Table 12 (continued)

C	d	D	Gro	up N	Group 3		
			min.	max.	min.	max.	
mm	in	mm	μm		μm		
85	_	180					
87,312 90	3-7/16 —	190					
95	_	200	24	58	53	84	
100 100,012 101,6	— 3-15/16 4	215					
105	_	225					
110	_	240	28	66	61	97	
120	_	260					
130	_	280	33	81	71	114	
140	_	300	- 00	01	, 1	117	



Price based on 7 pages