Second edition 2007-11-01

# Rolling bearings — Sleeve type linear ball bearings — Boundary dimensions and tolerances

Roulements — Roulements linéaires à recirculation de billes, type manchon — Dimensions d'encombrement et tolérances



Reference number ISO 10285:2007(E)

### 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 2007

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

Cor	ntents	Page
Fore	word	iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols	
5	Boundary dimensions	3
6	Tolerances	3
6.1	Classes	3
6.2	Applicability	3
6.3	Shaft tolerances	3
Anne	ex A (informative) Basis of tolerances for sleeve type linear ball bearings	10
Ribli	iography	11

# **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.

ISO 10285 was prepared by Technical Committee ISO/TC 4, Rolling bearings, Subcommittee SC 11, Linear motion rolling bearings.

This second edition cancels and replaces the first edition (ISO 10285:1992), which has been technically revised.

# Introduction

Linear motion rolling bearings provide for linear motion as opposed to rotational motion. The sleeve type linear ball bearing described in this International Standard uses balls which circulate in a number of closed loops in the cylindrical bearing that surrounds the shaft.

Linear ball bearings are typically applied to meet one or more of the following criteria:

- a) smooth low-friction motion, free from stick-slip or chatter;
- b) low force required to produce relative linear motion between the bearing and the shaft.

These requirements, as well as others, can be met by appropriate use of the various linear motion rolling bearing types (closed sleeve type, adjustable sleeve type and open sleeve type). The appropriate selection of bearing type and specification is to be established between the manufacturer and the user.