

---

---

**Plain bearings — Thin-walled  
half bearings with or without flange —**

Part 2:  
**Measurement of wall thickness  
and flange thickness**

*Paliers lisses — Demi-coussinets minces à collerette ou sans  
collerette —*

*Partie 2: Mesurage de l'épaisseur de paroi et de l'épaisseur  
de collerette*



**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.

This document is a preview generated by EVS



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2009

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](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword .....	iv
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Symbols and units .....	2
5 Purpose of checking .....	2
6 Checking methods .....	3
6.1 Measuring principle .....	3
6.2 Line measurement around the circumference .....	3
6.3 Line measurement in the axial direction .....	4
6.4 Point measurement .....	5
6.5 Grading of bearings .....	6
6.6 Eccentric bore .....	6
7 Requirements for measuring equipment and specimen for the contact method .....	6
7.1 Radius for measuring the outside surface .....	6
7.2 Radius for measuring the inside surface .....	6
7.3 Measuring pin load .....	7
7.4 Set-up .....	7
7.5 Periodic checking .....	7
7.6 Failures on the inside and/or outside surface .....	7
8 Checking of measuring equipment .....	7
Bibliography .....	8

## 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 3548-2 was prepared by Technical Committee ISO/TC 123, *Plain bearings*, Subcommittee SC 5, *Quality analysis and assurance*.

Together with ISO 3547-7, this part of ISO 3548 replaces ISO 12306, which has been cancelled.

ISO 3548 consists of the following parts, under the general title *Plain bearings — Thin-walled half bearings with or without flange*:

— *Part 2: Measurement of wall thickness and flange thickness*

Tolerances, design features and methods of test is to form the subject of a part 1 of ISO 3548<sup>1)</sup> and the measurement of peripheral length is to form the subject of a part 3.

---

1) It is intended to replace ISO 3548:1999 with ISO 3548-1.

# Plain bearings — Thin-walled half bearings with or without flange —

## Part 2: Measurement of wall thickness and flange thickness

### 1 Scope

This part of ISO 3548 specifies, in accordance with ISO 12301, the checking of the wall-thickness of thin-walled half bearings with or without flange and describes the required checking methods and measuring equipment. It applies to a maximum bearing diameter of 150 mm. If this part of ISO 3548 is applied to a greater diameter, an agreement can be formulated between the supplier and the user.

### 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 3548, *Plain bearings — Thin-walled half bearings with or without flange — Tolerances, design features and methods of test*

ISO 12301, *Plain bearings — Quality control techniques and inspection of geometrical and material quality characteristics*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### wall thickness

$s_3$

radial distance between the opposing measuring points at the inside and the outside surface diameter

See Figure 1.

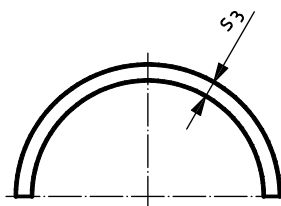


Figure 1 — Wall thickness,  $s_3$ , of a half bearing