



**International  
Standard**

**ISO 7902-3**

**Hydrodynamic plain journal  
bearings under steady-state  
conditions — Circular cylindrical  
bearings —**

**Part 3:  
Permissible operational parameters**

*Paliers lisses hydrodynamiques radiaux fonctionnant en régime  
stabilisé — Paliers circulaires cylindriques —*

*Partie 3: Paramètres opérationnels admissibles*

**Third edition  
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## Foreword

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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 document 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)).

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This document was prepared by Technical Committee ISO/TC 123, *Plain bearings*, Subcommittee SC 8, *Calculation methods for plain bearings and their applications*.

This third edition cancels and replaces the second edition (ISO 7902-3:2020), of which it constitutes a minor revision.

The changes are as follows:

- a note on equivalent calculation procedures has been added to the introduction.

A list of all parts in the ISO 7902 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

In order to attain sufficient operational reliability of circular cylindrical plain journal bearings when calculated in accordance with ISO 7902-1, it is essential that the calculated operational parameters  $h_{\min}$ ,  $T_B$  or  $T_{\text{ex}}$  and  $\bar{p}$  do not lie above or below the permissible operational parameters  $h_{\text{lim}}$ ,  $T_{\text{lim}}$  and  $\bar{p}_{\text{lim}}$ . The permissible parameters represent geometrically and technologically dependent operational limits within the plain bearing tribological system. They are empirical values which still enable sufficient operational reliability even for minor influences (see ISO 7902-1).

NOTE Equivalent calculation procedures exist that enable operating conditions to be estimated and checked against acceptable conditions. Another calculation procedure is equally admissible.

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