

## Konstruksioonilaagrid. Osa 5: Pott- laagrid

Structural bearings - Part 5: Pot bearings

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1337-5:2005 sisaldab Euroopa standardi EN 1337-5:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 28.04.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1337-5:2005 consists of the English text of the European standard EN 1337-5:2005.</p> <p>This document is endorsed on 28.04.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This part of EN 1337 specifies the requirements for the design and manufacture of pot bearings which will be used for operating temperatures between – 40 °C and 50 °C.</p>	<p><b>Scope:</b> This part of EN 1337 specifies the requirements for the design and manufacture of pot bearings which will be used for operating temperatures between – 40 °C and 50 °C.</p>
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**ICS** 91.010.30

**Võtmesõnad:**

ICS 91.010.30

English version

## Structural bearings - Part 5: Pot bearings

Appareils d'appui structuraux - Partie 5: Appareils d'appui à  
pot

Lager im Bauwesen - Teil 5: Topflager

This European Standard was approved by CEN on 4 June 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This document (EN 1337-5:2005) has been prepared by Technical Committee CEN/TC 167 "Structural bearings", the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2006, and conflicting national standards shall be withdrawn at the latest by December 2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive (s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The European Standard EN 1337 consists of the following 11 parts:

- Part 1      General design rules
- Part 2      Sliding elements
- Part 3      Elastomeric bearings
- Part 4      Roller bearings
- Part 5      Pot bearings
- Part 6      Rocker bearings
- Part 7      Spherical and cylindrical PTFE bearings
- Part 8      Guide bearings and restrain bearings
- Part 9      Protection
- Part 10     Inspection and maintenance
- Part 11     Transport, storage and installation

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This part of EN 1337 specifies the requirements for the design and manufacture of pot bearings which will be used for operating temperatures between – 40 °C and 50 °C.

This part of EN 1337 does not apply to pot bearings made with other materials than those specified in clause 5.

Bearings which are subjected to rotation  $\alpha_d$  greater than 0,030 rad (see Figure 2) under the characteristic combination of actions or which incorporate elastomeric pads larger than 1500 mm in diameter are beyond the scope of this document.

Depending on the climatic region where the construction work is located the bearings can be designed to one of the following classes related to minimum operating temperatures (the minimum shade air temperatures): - 25 °C or – 40 °C.

When required to accommodate translational movements, pot bearings may be combined with sliding elements in accordance with EN 1337-2.

NOTE The minimum shade air temperature for a location should be obtained from meteorological data appropriate to a 120 year return period. Consideration should be given to adjustment of this temperature for height and local divergence such as frost pockets and sheltered low-lying areas if the data obtained applies to a general area rather than to a specific location.

## 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.

EN 1337-1:2000, *Structural bearings — Part 1: General design rules.*

EN 1337-2:2004, *Structural bearings — Part 2: Sliding elements.*

EN 1337-9:1997, *Structural bearings — Part 9: Protection.*

EN 1337-10, *Structural bearings — Part 10: Inspection and maintenance.*

EN 1990, *Eurocode - Basis of structural design.*

EN 10025-1, *Hot rolled products of structural steels - Part 1: General technical delivery conditions.*

EN 10025-2, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 10083-3, *Quenched and tempered steels — Part 3: Technical delivery conditions for boron steels.*

EN 10088-2, *Stainless steels — Part 2: Technical delivery conditions for sheet/plate and strip for general purposes.*

EN 10113-1, *Hot-rolled products in weldable fine grain structural steels — Part 1: General delivery conditions.*

EN 10204, *Metallic products — Types of inspection documents.*

EN 12163, *Copper and copper alloys — Rod for general purposes.*

EN 12164, *Copper and copper alloys — Rod for free machining purposes.*

EN ISO 527-1, *Plastics - Determination of tensile properties - Part 1: General principles (ISO 527-1:1993 including Corr 1:1994).*

EN ISO 527-2, *Plastics - Determination of tensile properties - Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2:1993 including Corr 1:1994).*

EN ISO 1133, *Plastics - Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics (ISO 1133:1997).*

EN ISO 2039-1, *Plastics - Determination of hardness - Part 1: Ball indentation method (ISO 2039-1:2001).*

EN ISO 4288, *Geometrical product specifications (GPS) - Surface texture: Profile method - Rules and procedures for the assessment of surface texture (ISO 4288:1996).*

EN ISO 7500-1, *Metallic materials - Verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Verification and calibration of the force-measuring system (ISO 7500-1:2004)*

ISO 1083, *Spheroidal graphite cast irons — Classification.*

ISO 1183, *Plastics — Methods for determining the density of non-cellular plastics.*

ISO 3755, *Cast carbon steels for general engineering purposes.*

ISO 6446, *Rubber products — Bridge bearings — Specification for rubber materials.*

### **3 Terms, definitions, symbols and abbreviations**

#### **3.1 Terms and definitions**

For the purposes of this document, the following terms and definitions apply (see Figure 1).