



**SLOVENSKI STANDARD**  
**SIST EN 2588:2024**

**01-december-2024**

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**Aeronavtika - Ležaj, krogelni, drsni, iz korozijsko odpornega jekla z utorom - Mere in nosilnosti**

Aerospace series - Bearing, spherical plain in corrosion resisting steel with assembly slots - Dimensions and loads

Luft- und Raumfahrt - Gelenklager aus korrosionsbeständigem Stahl mit Einführnut - Maße und Belastungen

Série aérospatiale - Rotule lisses en acier résistant à la corrosion avec encoches d'assemblage - Dimensions et charges

**Ta slovenski standard je istoveten z: EN 2588:2024**

**SIST EN 2588:2024**

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**ICS:**

49.035

Sestavni deli za letalsko in vesoljsko gradnjo

Components for aerospace construction

**SIST EN 2588:2024**

**en,fr,de**



EUROPEAN STANDARD

EN 2588

NORME EUROPÉENNE

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October 2024

ICS 49.035

Supersedes EN 2588:2006

English Version

## Aerospace series - Bearing, spherical plain in corrosion resisting steel with assembly slots - Dimensions and loads

Série aérospatiale - Rotule lisse en acier résistant à la  
corrosion avec encoches d'assemblage - Dimensions et  
charges

Luft- und Raumfahrt - Gelenklager aus  
korrosionsbeständigem Stahl mit Einführnut - Maße  
und Belastungen

This European Standard was approved by CEN on 9 September 2024.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 2588:2024) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

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 April 2025, and conflicting national standards shall be withdrawn at the latest by April 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 2588:2006.

This document includes the following significant technical changes with respect to EN 2588:2006:

- normative references updated;
- subclause 5.4 “Materials”: hardness requirement for the outer ring corrected.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

**EN 2588:2024 (E)****1 Scope**

This document specifies the characteristics of spherical plain bearings in corrosion resisting steel, with assembly slots, metric series, with or without lubrication holes and groove, intended for use in fixed or moving parts of aircraft structure and control mechanisms, within the temperature range from  $-54\text{ }^{\circ}\text{C}$  to  $150\text{ }^{\circ}\text{C}$ .

It also applies to the following temperature ranges when lubricated with the following greases (see EN 2337):

- ester type very high pressure grease (code letter A), operating range from  $-73\text{ }^{\circ}\text{C}$  to  $121\text{ }^{\circ}\text{C}$ ;
- synthetic hydrocarbon type very high pressure grease general purpose (code letter B), operating range from  $-54\text{ }^{\circ}\text{C}$  to  $177\text{ }^{\circ}\text{C}$ .

Their field of application when lubricated with grease code letter A is limited to  $121\text{ }^{\circ}\text{C}$ .

**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2030, *Aerospace series — Steel X105CrMo17 (1.3544) — Hardened and tempered — Bars —  $D_e \leq 150\text{ mm}$*

EN 2337, *Aerospace series — Spherical plain bearings — Technical specification*

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2491, *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*

ISO 1132-1, *Rolling bearings — Tolerances — Part 1: Terms and definitions*

ISO 8075, *Aerospace — Surface treatment of hardenable stainless steel parts*

**3 Terms and definitions**

For the purposes of this document, the terms and definitions given in ISO 1132-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

**4 Symbols and abbreviations**

The following symbols for tolerances are used:

$\Delta_{dmp}$	single plane mean bore diameter deviation
$\Delta_{ds}$	deviation of a single bore diameter
$\Delta_{Dmp}$	single plane mean outside diameter deviation
$\Delta_{Ds}$	deviation of a single outside diameter
$\alpha$	angle of tilt of the outer ring with respect to the inner ring, the spherical surface of the outer ring being completely in contact with the inner ring