



SLOVENSKI STANDARD SIST EN 6055:2019

01-julij-2019

Aeronavtika - Končnik z očesom in ležajem po EN 4265 iz korozijsko odpornega jekla, z zunanjo navojno ročico - Mere in obremenitve - Palčne mere

Aerospace series - Rod-end with bearing EN 4265 in corrosion resisting steel, external threaded shank - Dimensions and loads - Inch series

Luft- und Raumfahrt - Ösenkopf mit Gelenklager nach EN 4265 aus korrosionsbeständigem Stahl, mit Aussengewinde - Maße und Belastungen - Inch Reihe

Série aérospatiale - Embout avec rotule lisse en acier par EN 4265 résistant à la corrosion avec le filetage extérieur - Dimensions et charges - Série en inches

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Ta slovenski standard je istoveten z: EN 6055:2019

ICS:

| | | |
|--------|--|---------------------------------------|
| 49.035 | Sestavni deli za letalsko in vesoljsko gradnjo | Components for aerospace construction |
|--------|--|---------------------------------------|

SIST EN 6055:2019

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EUROPEAN STANDARD

EN 6055

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2019

ICS 49.035

English Version

Aerospace series - Rod-end with bearing EN 4265 in corrosion resisting steel, external threaded shank - Dimensions and loads - Inch series

Série aérospatiale - Embout à rotule lisse suivant EN 4265, en acier résistant à la corrosion, avec filetage extérieur - Dimensions et charges - Série en inches

Luft- und Raumfahrt - Ösenkopf mit Gelenklager nach EN 4265 aus korrosionsbeständigem Stahl, mit Aussengewinde - Maße und Belastungen - Inch Reihe

This European Standard was approved by CEN on 12 November 2018.

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 CEN-CENELEC Management Centre or to any CEN member.

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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.

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



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 6055:2019) 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 Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, 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 November 2019, and conflicting national standards shall be withdrawn at the latest by November 2019.

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.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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EN 6055:2019 (E)**Introduction**

This document is published at edition P2. Former P1 and drafts may exist of Airbus development only but without any ASD-STAN official publication. In consequence configuration management discrepancies with these unofficial documents are under Airbus responsibility.

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1 Scope

This European standard specifies the characteristics of adjustable rod-ends consisting of:

- a spherical plain bearing, metal to metal, in corrosion resisting steel, wide series (EN 4265);
- a rod-end with threaded shank with an optional longitudinal groove for locking purposes.

They are intended for use in fixed or moving parts of the aircraft structure and their control mechanisms.

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 2133, *Aerospace series — Cadmium plating of steels with specified tensile strength $\leq 1\,450$ MPa, copper, copper alloys and nickel alloys*

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

EN 4265, *Aerospace series — Bearing spherical plain, metal to metal in corrosion resisting steel — Wide series — Dimensions and loads — Inch series*

EN 6099, *Aerospace series — Rod-ends with plain bearing, metal to metal — Technical Specification*

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

ISO 3161, *Aerospace — UNJ threads — General requirements and limit dimensions*

ISO 3353-1, *Aerospace — Lead and runout threads — Part 1: Rolled external threads*

ISO 3353-2, *Aerospace — Lead and runout threads — Part 2: Internal threads*

ISO 8074, *Aerospace — Surface treatment of austenitic stainless steel parts*

MIL-PRF-23827, *Grease, aircraft and instrument, gear and actuator screw, NATO Code No.G-354 metric*¹

MIL-PRF-46010, *Lubricant, solid film, heat cured, corrosion inhibiting, NATO Code-S-1738*¹

MIL-PRF-81322, *Grease, aircraft, general purpose, wide temperature range, NATO Code-G-395*¹

NAS 559, *Lock-rod end (key type)*²

SAE AMS 5643, *Steel, corrosion resistant, bars wire, forgings, tubing and rings 16Cr-4.0Ni-0.30(Cb+Ta)-4.0Cu solution heat treated, precipitation hardenable*²

TR 4475, *Bearings and mechanical transmissions for airframe applications — Vocabulary*³

1 Published by: Department of Defense (DoD), the Pentagon, Washington, D.C., 20307, USA.

2 Published by: Aerospace Industries Association of America, Inc. (AIA), 1250 Eye Street, N.W., Washington, D.C. 20005-3924, USA

3 Published as ASD-STAN Technical Report at the date of publication of this European standard by AeroSpace and Defence industries Association of Europe – Standardization (ASD-STAN) (www.asd-stan.org).

EN 6055:2019 (E)**3 Terms, definitions and symbols**

For the purposes of this document, the terms and definitions given in TR 4475 apply.

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

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

Symbols of limit deviations are in accordance with definitions of ISO 1132-1.

| | |
|----------------|---|
| α | maximum angle of tilt of the outer ring with respect to the inner ring, with the spherical surface of the outer ring being completely in contact with the inner ring; |
| C_s | permissible static radial load; |
| Δ_{dmp} | single plane mean bore diameter deviation; |
| Δ_{ds} | deviation of a single bore diameter; |
| C_p | push out load; |
| C_f | fatigue load, |

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4 Requirements

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4.1 Configuration, dimensions, tolerances and mass

Configuration, dimensions, tolerances and mass shall be according to Figure 1 and Table 1.

Table 1 and Table 5: Dimensions and tolerances are expressed in millimetres (inches).

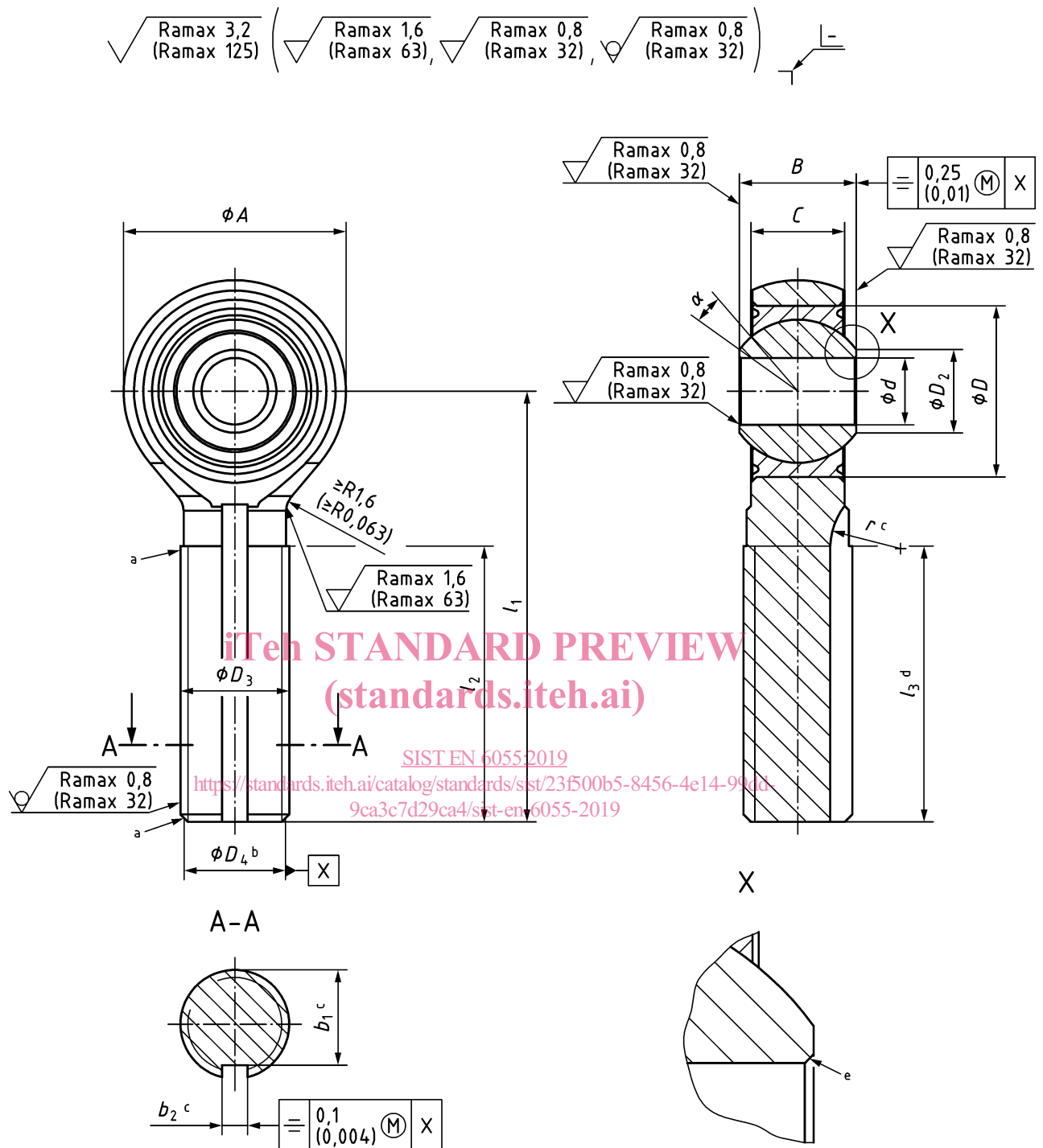
Figure 1: Dimensions and tolerances for Ra max. are expressed in μm (μin).

Values apply after surface treatment.

4.2 Surface roughness

Surface roughness shall be according to Figure 1.

Surface roughness is measured before surface treatment.



Key

- a run-out according to ISO 3353
- b thread, pitch diameter
- c groove as per NAS 559
- d usable length for groove
- e 0,127 to 0,381 (0.005 to 0.015) radius or chamfer 45°

Figure 1 — Configuration