SLOVENSKI STANDARD
SIST EN 2584:2019

01-maj-2019

Nadomešča:

SIST EN 2023:2001

SIST EN 2023:2001/AC1:2001

SIST EN 2584:2004

Aeronavtika - Kroglasti drsni ležaji iz korozijsko odpornega jekla s samomazalno oblogo - Ozki tip - Serija za večje obremenitve pri okoljski temperaturi - Mere in nosilnosti

Aerospace series - Bearings, spherical plain in corrosion resisting steel with self-lubricating liner - Narrow series - Elevated load at ambient temperature - Dimensions and loads

Luft- und Raumfahrt - Gelenklager aus korrosionsbeständigem Stahl mit selbstschmierender Beschichtung - Schmale Reihe - Hohe Belastung bei Raumtemperatur - Maße und Belastungen

Série aérospatiale - Rotules en acier résistant à la corrosion à garniture autolubrifiante - Série étroite - Charge élevée à température ambiante - Dimensions et charges

Ta slovenski standard je istoveten z: EN 2584:2019

ICS:

21.100.10	Drsni ležaji	Plain bearings
49.035	Sestavni deli za letalsko in vesoljsko gradnjo	Components for aerospace construction

SIST EN 2584:2019 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 2584

February 2019

ICS 49.035

Supersedes EN 2023:1988, EN 2584:2001

English Version

Aerospace series - Bearings, spherical plain in corrosion resisting steel with self-lubricating liner - Narrow series - Elevated load at ambient temperature - Dimensions and loads

Série aérospatiale - Rotules en acier résistant à la corrosion à garniture autolubrifiante - Série étroite - Charge élevée à température ambiante - Dimensions et charges

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This European Standard was approved by CEN on 13 August 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.

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 2584:2019) 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 August 2019, and conflicting national standards shall be withdrawn at the latest by August 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.

This document supersedes EN 2584:2001 and EN 2023:1988.

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.

1 Scope

This European standard specifies the characteristics of spherical plain bearing in corrosion resisting steel, with self-lubricating liner, narrow series, for elevated load. at ambient temperature, with or without swaging groove, intended for use in the fixed or moving parts of the aircraft structure and control mechanisms.

They shall be used in the temperature range −55 °C to +163 °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 — De ≤ 150 mm*

EN 2132, *Aerospace series — Electrodeposition of Chromium for Engineering Purposes*

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

EN 2755, *Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner — Elevated load at ambient temperature — Technical specification*

EN 3161, *Aerospace series — Steel FE-PM3801 (X5CrNiCu17-4) — Air melted, solution treated and precipitation treated, bar a or D ≤ 200 mm — Rm ≥ 930 MPa*

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

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

3 Symbols and abbreviations

The tolerance definitions are given in ISO 1132-1.

Δ_{dmp} = single plane mean bore diameter deviation;

Δ_{ds} = deviation of a single bore diameter;

Δ_{Dmp} = single plane mean outside diameter deviation;

Δ_{Ds} = deviation of a single outside diameter;

α = 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.

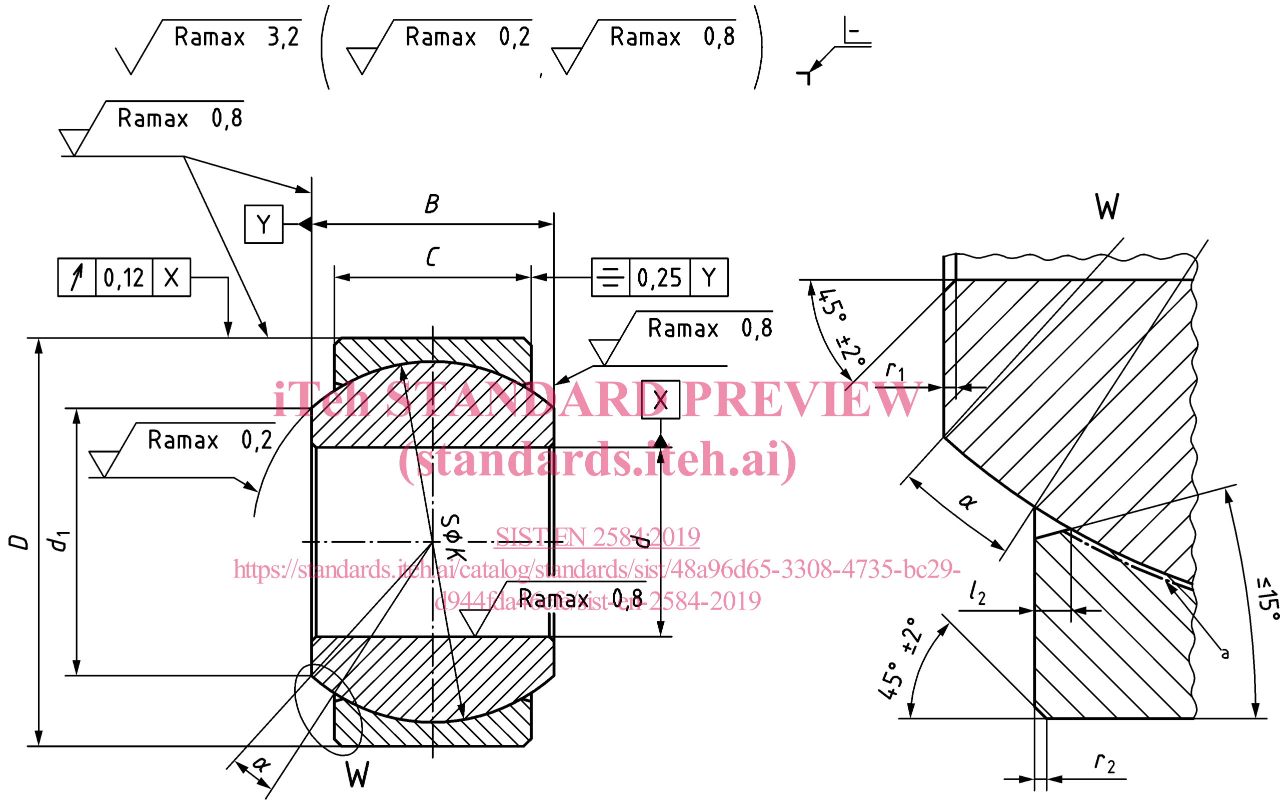
4 Required characteristics

4.1 Configuration, dimensions, tolerances and mass

According to Figures 1 and 2 and Table 1. The dimensions are expressed in millimetres and apply after surface treatment.

4.2 Surface roughness

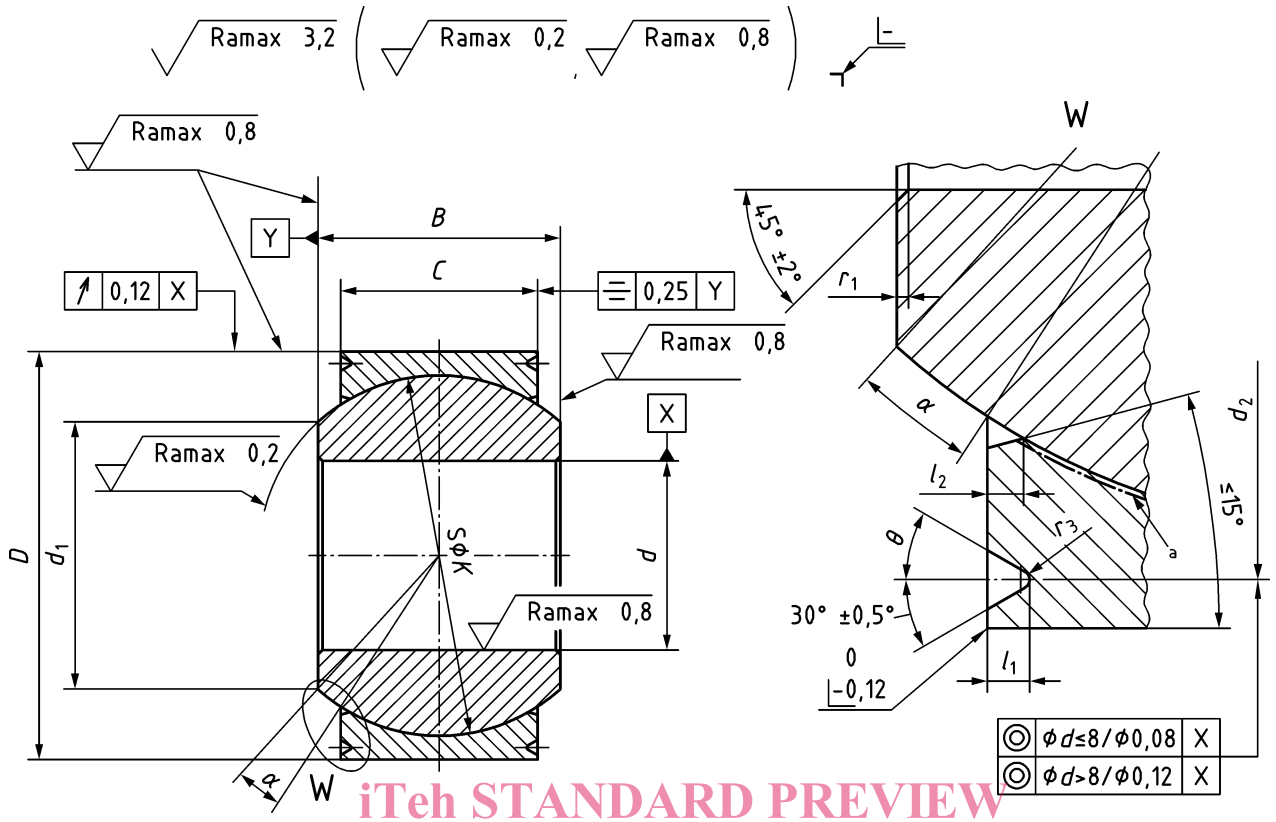
According to Figures 1 and 2. The values are expressed in micrometres and apply before surface treatment.



Key

a liner

Figure 1 — Bearing without swaging groove, code S



Key

a liner

Figure 2 — Bearing with swaging grooves, code R

Table 1 — Dimensions and tolerances

$Ød$		B 0 −0,06	C ±0,1	$ØD$	Tolerances µm				$Ød_1$ min.	$Ød_2$ +0,1 0	$ØK$ ≈	l_1 0 −0,2	l_2 max.	r_1	r_2	r_3 +0,1 0	α min[a]	$\Theta°$ ±0,5°	**Mass** g/piece
Code	**nom.**				Δ_{dmp}	Δ_{ds}	Δ_{Dmp}	Δ_{Ds}											
05	5	7	5,5	14	0 −8	+2 −10	0 −8	+5 −13	8,6	12,2	11,1	0,7	0,8	0,1 to 0,4	0,5 to 0,8	0,2	9	20	7
06	6	9	6,5	16					9	14,2	12,8						14		9
08	8	10	7	18					10,2	16,2	14,3						15		12
10	10	10,5	8	21			0 −9	+6 −15	11,9	18,4	15,9	0,9	0,9			0,3	11	30	20
12	12	13	10	25		+3 −11			15	22,4	19,8						10		32
15	15	15	12	29					20,5	26,4	25,4		1				8		50
17	17	16	13,5	31					21,7	28,4	27						7		59
22	22	22	18	40	0 −10	+3 −13	0 −11	+8 −19	27,1	36,8	34,9	1,4	1,2		0,6 to 1		8		126
25	25	25	20	45					29,6	41,8	38,8								185
30	30	28	24	51					35,5	47,8	45,2						6		300
35	35	31	26	57	0 −12	+3 −15	0 −13	+10 −23	41,7	53,8	52		1,5		0,8 to 1,2		7		340
40	40	34	29	64					47	60,8	56						6		460
45	45	37	32	72					52,2	68,8	64						5		630
50	50	41	34	80			0 −15	+13 −28	59,2	76,8	72						7		870

[a] Maximum values for the user.