



SLOVENSKI STANDARD SIST EN 2327:2009

01-april-2009

BUXca Yý U
SIST EN 2327:2001

5 YfcbUj h_U! NUý JhbYdcX`cý_YžfUX]Ubc`cncV`^bYž]n`Y[JfUbY[U`Y_`Užg
_UXa J`Yj c`dfYj`Y_cžnU_cblfc`bY`dU]W`df]`_fa J`Yb1`!`AYfY

Aerospace series - Washers, lock, with radial serrations in alloy steel, cadmium plated for flight control rods - Dimensions

Luft- und Raumfahrt - Sicherungen, radial verzahnt, aus legiertem Stahl, verkadmet für Bediengestänge von Flugsteuerungen - Maße

Série aérospatiale - Freins à stries radiales en acier allié, cadmiés pour bielles de commandes de vol - Dimensions

ITeH STANDARD PREVIEW
(standards.iteh.ai)
<http://standards.iteh.ai/catalog/standards/sist/9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009>

Ta slovenski standard je istoveten z: EN 2327:2006

ICS:

49.030.50	Podložke in drugi blokirni elementi	Washers and other locking elements
-----------	-------------------------------------	------------------------------------

SIST EN 2327:2009

en,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 2327:2009

<https://standards.iteh.ai/catalog/standards/sist/f9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 2327

May 2006

ICS 49.030.50

Supersedes EN 2327:1987

English Version

Aerospace series - Washers, lock, with radial serrations in alloy steel, cadmium plated for flight control rods - Dimensions

Série aéronautique - Freins à stries radiales en acier allié, cadmiés pour bielles de commandes de vol - Dimensions

Luft- und Raumfahrt - Sicherungen, radial verzahnt, aus legiertem Stahl, verkadmet für Bediengestänge von Flugsteuerungen - Maße

This European Standard was approved by CEN on 26 October 2005.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN 2327:2009](https://standards.iteh.ai/catalog/standards/sist/9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009)

<https://standards.iteh.ai/catalog/standards/sist/9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009>



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents		Page
Foreword		3
1	Scope	4
2	Normative references	4
3	Required characteristics	4
4	Designation	6
5	Marking	7
6	Qualification	7

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 2327:2009

<https://standards.iteh.ai/catalog/standards/sist/f9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009>

Foreword

This European Standard (EN 2327:2006) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 2006, and conflicting national standards shall be withdrawn at the latest by November 2006.

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

This European Standard supersedes EN 2327:1987.

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

SIST EN 2327:2009

<https://standards.iteh.ai/catalog/standards/sist/f9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009>

EN 2327:2006 (E)**1 Scope**

This standard specifies the characteristics of lock washers with radial serrations primarily intended for flight control rods.

These lock washers are intended to immobilise the rod end in relation to the rod body, whilst allowing a precise positional adjustment.

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

EN 2438, *Steel FE-PL62 – $900\text{ MPa} \leq R_m \leq 1\,100\text{ MPa}$ – Bars $D_e \leq 40\text{ mm}$ – Aerospace series.*¹⁾

EN 2439, *Steel FE-PL62 – $900\text{ MPa} \leq R_m \leq 1\,100\text{ MPa}$ – Forgings $D_e \leq 40\text{ mm}$ – Aerospace series.*¹⁾

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts.*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3 Required characteristics**3.1 Dimensions – Mass**

[SIST EN 2327:2009](https://standards.iteh.ai/catalog/standards/sist/9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009)

[https://standards.iteh.ai/catalog/standards/sist/9198889-9c6b-4cd8-8186-](https://standards.iteh.ai/catalog/standards/sist/9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009)

[b41ab5104e5e/sist-en-2327-2009](https://standards.iteh.ai/catalog/standards/sist/9198889-9c6b-4cd8-8186-b41ab5104e5e/sist-en-2327-2009)

Configuration shall correspond to Figures 1, 2 and 3.

The dimensions and masses shall conform with values quoted in Tables 1 and 2.

Dimensions apply after cadmium plating.

3.2 Surface roughness

$R_a = 3,2\ \mu\text{m}$. This value applies prior to cadmium plating.

3.3 Material

Steel according to EN 2438.

Steel according to EN 2439.

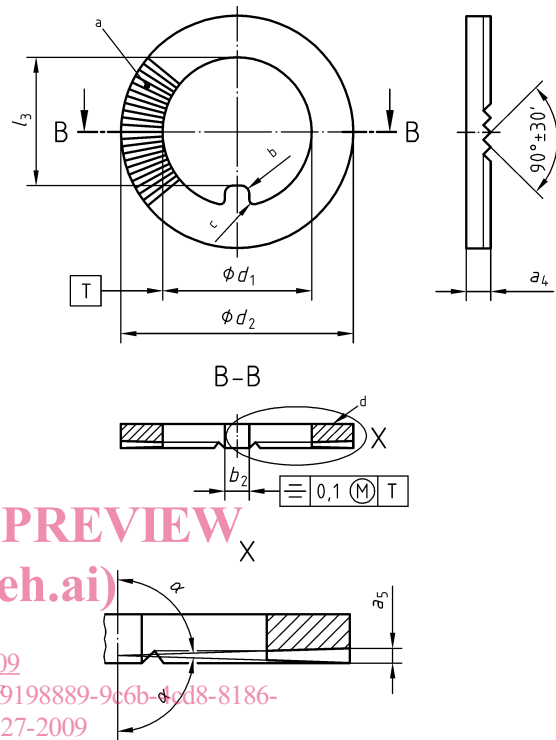
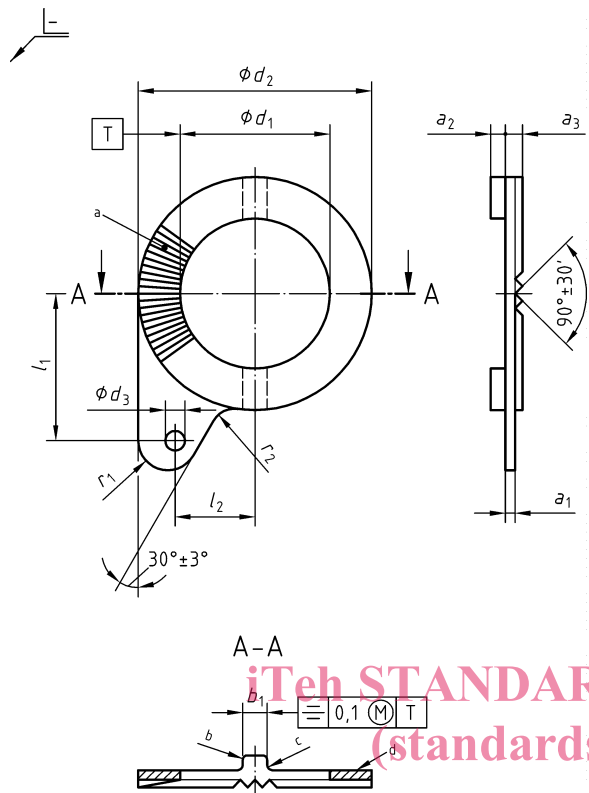
3.4 Surface treatment

Cadmium plated according to EN 2133, $10\ \mu\text{m}$ to $20\ \mu\text{m}$.

1) Published as AECMA Standard at the date of publication of this standard

Dimensions in millimetres

Dimensions in millimetres



- a N equidistant serrations
- b R 0,5 to 0,8
- c R 0,3 to 0,5
- d Identification mark

- a N equidistant serrations
- b R 0,5 to 0,8
- c R 0,3 to 0,4
- d Identification mark

Figure 1 — Element for rod body side – Code A

Figure 2 — Element for rod end side – Code B

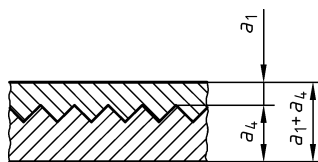


Figure 3 — Thickness of lock washer assembly

Table 1

Dimensions in millimetres

Diameter code	d_1	d_2	d_3	a_1	a_2	a_3	a_4	(a_5)	b_1	b_2	l_1	l_2	l_3	r_1	r_2
	$\pm 0,1$	$+0,5$ 0	$\pm 0,25$	$\pm 0,15$	$+0,15$ $-0,25$	$\pm 0,15$	$\pm 0,15$		$\pm 0,15$	$\pm 0,15$	$\pm 0,25$	$\pm 0,25$	0 $-0,15$	$\pm 0,15$	$\pm 0,15$
08	8,2	12,7	1,6	0,58	1,0	1,1	1,8	0,5	1,3	1,3	8,4	4,0	6,8	2,4	0,70
10	10,2	19,0		0,80		1,2	1,4	2,0	0,6	2,0	2,0	12,0	6,5		8,3
12	12,2														
14	14,2	22,0	1,8	0,86	1,5	1,6	2,3	0,7	2,9	2,9	13,0	8,8	12,5	2,7	1,45
16	16,3	25,4							3,0	3,0	14,7	10,0	14,0		

Table 2

Diameter code	N Number of serrations	α		$a_1 + a_4$	Mass lock washer assembly
		min.	max.	mm	g
				$\pm 0,3$	\approx
08	42	87°21'	88°21'	2,38	1,8
10	50	87°42'	88°42'	2,80	6,0
12					4,5
14	56	89°20'	90°	3,10	5,8
16				3,16	9,6

4 Designation

EXAMPLE

Description block	Identity block
WASHER LOCK	EN2327A08

Number of this standard _____

Code for the lock washer (see Table 3) _____

Diameter code (see Table 1) _____

NOTE If necessary, the code I9005 shall be placed between description block and identity block.