



# SLOVENSKI STANDARD

## oSIST prEN 6122:2024

01-oktober-2024

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### Aeronavtika - Slepa kovica, 130° ugrezna glava, visoka trdnost

Aerospace series - Blind bolt, 130° flush head, high strength

Luft- und Raumfahrt - Blindbolzen, 130° Senkkopf, hochfest

Série aérospatiale - Boulon aveugle, Tête fraisée 130°, haute résistance

Ta slovenski standard je istoveten z: prEN 6122

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#### **ICS:**

49.030.20 Sorniki, vijaki, stebelni vijaki Bolts, screws, studs

**oSIST prEN 6122:2024**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 6122**

August 2024

ICS 49.030.20

Will supersede

English Version

## Aerospace series - Blind bolt, 130° flush head, high strength

Série aérospatiale - Boulon aveugle, Tête fraisée 130°,  
haute résistance

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hochfest

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

**Warning** : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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 (prEN 6122:2024) has been prepared by 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 document is currently submitted to the CEN Enquiry.

This document will supersede prEN 6122:2005<sup>1</sup>.

This document includes the following significant technical changes with respect to prEN 6122:2005:

- a) Figure 1 and Figure 2 updated (dimension  $Q$  removed);
- b) dimension  $Q$  removed in Table 1 accordingly;
- c) Table 1 and Table 3: Single values corrected and hole limits removed;
- d) Table 5 and Table 6 updated according updated normative references and preferred options;
- e) oversize “X” added in document.

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<sup>1</sup> Published by ASD-STAN, available at <https://www.asd-stan.org>.

**prEN 6122:2024 (E)****1 Scope**

This document specifies the configuration, dimensions, tolerances and mass of a stainless steel and titanium blind bolt with 130° flush head for aerospace application.

**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 2424:2008, *Aerospace series — Marking of aerospace products*

EN 4473, *Aerospace series — Aluminium pigmented coatings for fasteners — Technical specification*

ISO 8080, *Aerospace — Anodic treatment of titanium and titanium alloys — Sulfuric acid process*

ASTM B348,<sup>2</sup> *Standard Specification for Titanium and Titanium Alloy Bars and Billets*

DOD-L-85645,<sup>3</sup> *Lubricant, Dry Film, Molecular Bonded*

MIL-PRF-46010,<sup>2</sup> *Lubricant, Solid Film, Heat cured, Corrosion Inhibiting NATO Code – S-1738*

NASM 8975,<sup>4</sup> *Fastener, Blind, High Strength, Installation Formed, Cres, Heat Resistant Steel and Titanium, General Specification for*

SAE AMS2700,<sup>5</sup> *Passivation of Corrosion Resistant Steels*

SAE AMS4957,<sup>4</sup> *Titanium Alloy, Round Bar and Wire, 3Al-8V-6Cr-4Mo-4Zr, Consumable Electrode Melted Solution Heat Treated and Cold Drawn*

SAE AMS5687,<sup>4</sup> *Nickel Alloy, Corrosion- and Heat-Resistant, Wire 74Ni-15,5Cr-8,0Fe Annealed*

SAE AMS5690,<sup>4</sup> *Steel, Corrosion and Heat Resistant, Wire, 17Cr-12N-2.5Mo (316), Solution Heat Treated*

SAE AMS5737,<sup>4</sup> *Steel, Corrosion and Heat Resistant, Bars, Wire, Forgings, Mechanical Tubing, and Stock for Forging and Heading 15Cr-25,5Ni-1,2Mo-2,1Ti-0,006B-0,30V (A286) Consumable Electrode Remelted, 1650 °F (899 °C) Solution and Precipitation Heat Treated*

SAE AS5272,<sup>4</sup> *Lubricant, Solid Film; Heat Cured, Corrosion Inhibiting Procurement Specification*

SAE AS87132,<sup>4</sup> *Lubricant, Cetyl Alcohol, 1-Hexadecanol, Application to Fasteners*

<sup>2</sup> Published by American Society for Testing and Materials (ASTM International), available at: <https://www.astm.org/>.

<sup>3</sup> Published by Department of Defense (DoD), available at: <https://assist.dla.mil/>.

<sup>4</sup> Published by Aerospace Industries Association (AIA), available at: <https://www.aia-aerospace.org/>.

<sup>5</sup> Published by Society of Automotive Engineers (SAE), available at: <https://www.sae.org/>.

### 3 Terms and definitions

No terms and definitions are listed in this document.

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 Requirements

#### 4.1 Configuration, dimensions, tolerances, static strength, preload and spindle retention

The configuration, dimensions, tolerances, static strength, tensile preload and spindle retention shall conform to Figure 1, Figure 2, Table 1 and Table 2.

#### 4.2 Grip range and mass

Grip range and mass shall be according to Table 3 and Table 4.

#### 4.3 Material, finish and lubrication

Material, finish and lubrication shall be according to Table 5 and Table 6.

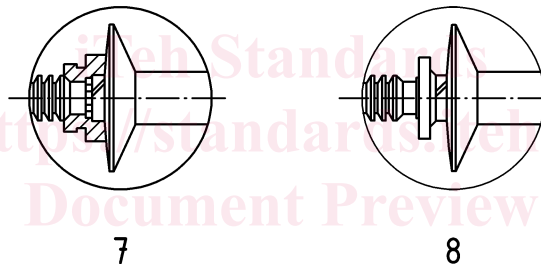
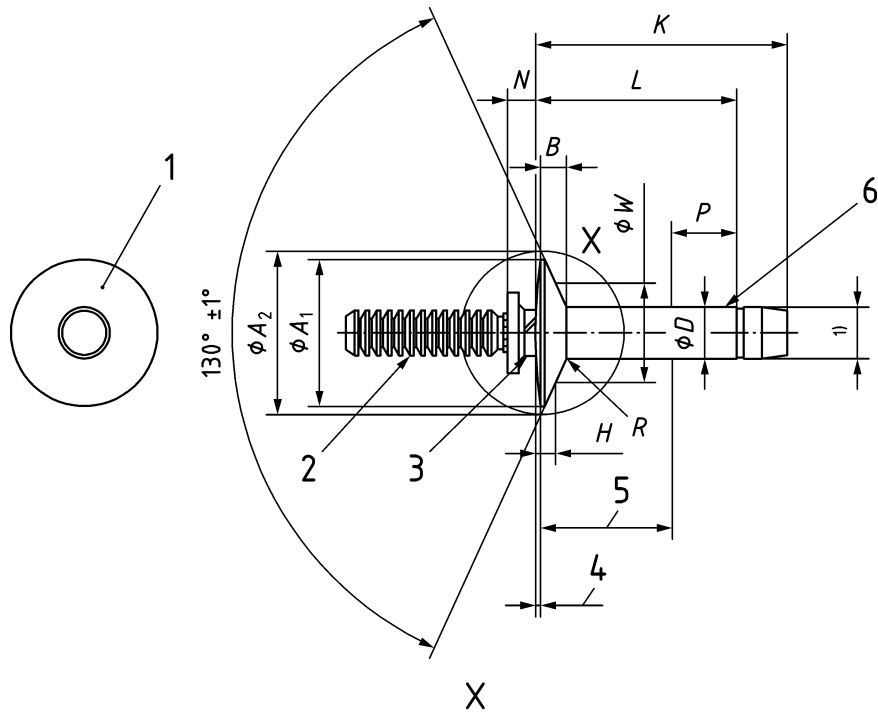
#### 4.4 First oversize

First oversize “X” shall be in CRES and according to Table 7, Table 8, Table 9 and Table 10.

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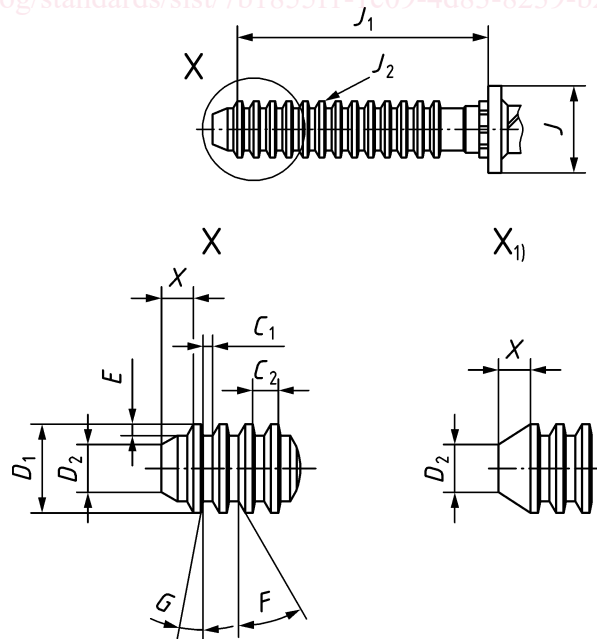
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a) Bolt configuration

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b) Serrated pin geometry

**Key**

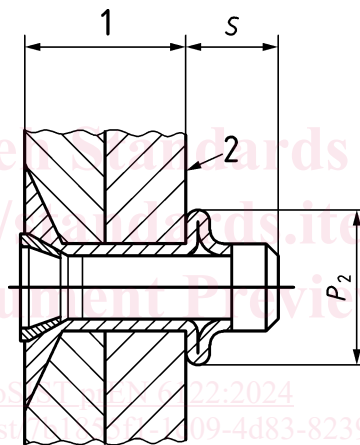
- 1 marking, see Clause 6
- 2 serrated pin
- 3 locking collar
- 4 0,005 Ref. crown height
- 5 grip
- 6 sleeve
- 7 shifting anvil
- 8 drive washer

Diameter of pin head shall not exceed " $\varnothing D$ " max

Fasteners are supplied with shifting anvil/drive washer of manufacturer's option. The shifting anvil/drive washer is not part of the installed fastener.

Optional configuration.

**Figure 1 — Configuration, dimensions**

**Key**

- 1 grip

Blind side head may be installed on 7° max. slope.

**Figure 2 — Typical installation**

Table 1 — Dimensions and tolerances, CRES and titanium

Dimensions in mm (inch)

		Diameter code					
		05	06	07	08	09	10
$\varnothing A$	Theor. Ref.	8,43 (0,332)	9,80 (0,386)	10,57 (0,416)	12,88 (0,507)	13,66 (0,538)	16,13 (0,635)
$\varnothing A_2$	min.	7,52 (0,296)	8,81 (0,347)	9,47 (0,373)	11,76 (0,463)	12,55 (0,494)	14,66 (0,577)
$B$	Ref.	0,99 (0,039)	1,09 (0,043)	1,09 (0,043)	1,45 (0,057)	1,45 (0,057)	1,91 (0,075)
$H$	<b>Gage HT</b>	0,478 0,376 (0,018 8) (0,014 8)	0,488 0,386 (0,019 2) (0,015 2)	0,627 0,561 (0,024 7) (0,022 1)	0,602 0,500 (0,023 7) (0,019 7)	0,754 0,696 (0,029 7) (0,027 4)	0,704 0,638 (0,027 7) (0,025 1)
$\varnothing W$	<b>Gage dia.</b>	7,193 7,188 (0,283 2) (0,283 0)	8,311 8,306 (0,327 2) (0,327 0)	8,420 8,415 (0,331 5) (0,331 3)	10,973 10,968 (0,432 0) (0,431 8)	10,973 10,968 (0,432 0) (0,431 8)	13,688 13,678 (0,538 9) (0,538 5)
$\varnothing D$	$\pm 0,03$ ( $\pm 0,001$ )	4,14 (0,163)	5,03 (0,198)	5,74 (0,226)	6,58 (0,259)	7,31 (0,288)	7,88 (0,310)
$\varnothing J^a$	$\pm 0,13$ ( $\pm 0,005$ )	9,53 (0,375)	9,53 (0,375)	9,53 (0,375)	9,53 (0,375)	9,53 (0,375)	11,13 (0,438)
$N$	$\pm 1,52$ ( $\pm 0,060$ )	3,56 (0,140)	4,06 (0,160)	4,45 (0,175)	4,83 (0,190)	5,33 (0,210)	6,09 (0,240)
$\varnothing D_1$	max.	3,05 (0,120)	3,81 (0,150)	4,14 (0,163)	4,83 (0,190)	5,23 (0,206)	5,61 (0,221)
$\varnothing D_2$	max.	2,16 (0,085)	2,79 (0,110)	3,17 (0,125)	3,66 (0,144)	4,06 (0,160)	4,82 (0,190)
$P^b$	max.	7,62 (0,300)	8,13 (0,320)	8,89 (0,350)	9,40 (0,370)	10,92 (0,430)	12,70 (0,475)
$\varnothing P_2$	min.	5,66 (0,223)	6,86 (0,270)	7,82 (0,308)	9,02 (0,355)	9,96 (0,392)	10,41 (0,410)
$R$	max	0,64 (0,025)	0,64 (0,025)	0,76 (0,030)	0,76 (0,030)	0,76 (0,030)	1,01 (0,040)
$S$	max.	5,89 (0,232)	7,42 (0,292)	8,17 (0,322)	9,17 (0,361)	10,16 (0,400)	11,22 (0,442)
$J_1$	$\pm 0,76$ ( $\pm 0,030$ )	20,32 (0,800)	21,08 (0,830)	22,60 (0,890)	24,77 (0,975)	26,67 (10,050)	26,67 (10,050)