

---

**Aeronavtika - Vijak, 100° ugrezna glava, križna zareza, polno steblo, ozka toleranca, srednja navojna dolžina, iz legiranega jekla, prevlečeni s kadmijem - Klasifikacija: 1100 MPa (pri temperaturi okolice)/235 °C**

Aerospace series - Screw, 100° countersunk normal head, offset cruciform recess, coarse tolerance normal shank, medium length thread, in alloy steel, cadmium plated - Classification: 1 100 MPa (at ambient temperature)/235 °C

Luft- und Raumfahrt - 100°-Senkschraube mit Flügelkreuzschlitz, mittlere Gewindelänge, aus legiertem Stahl, verkadmet - Klasse: 1 100 MPa (bei Raumtemperatur)/235 °C

Série aérospatiale - Vis à tête fraisée 100° normale, à empreinte cruciforme déportée, tige normale à tolérance large, filetage moyen, en acier allié, cadmiée - Classification : 1 100 MPa (à température ambiante)/235 °C

<https://standards.iteh.ai/catalog/standards/sist/3972ae6b-9242-4c9e-b00e-f8db39454d82/osist-pren-4162-2024>

**Ta slovenski standard je istoveten z: prEN 4162**

---

**ICS:**

49.025.10	Jekla	Steels
49.030.20	Sorniki, vijaki, stebelni vijaki	Bolts, screws, studs

**oSIST prEN 4162:2024**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 4162**

September 2024

ICS 49.030.20

Will supersede EN 4162:2016

English Version

**Aerospace series - Screw, 100° countersunk normal head,  
offset cruciform recess, coarse tolerance normal shank,  
medium length thread, in alloy steel, cadmium plated -  
Classification: 1 100 MPa (at ambient  
temperature)/235 °C**

Série aérospatiale - Vis à tête fraisée 100° normale, à  
empreinte cruciforme déportée, tige normale à  
tolérance large, filetage moyen, en acier allié, cadmiées  
- Classification: 1 100 MPa (à température  
ambiante)/235 °C

Luft- und Raumfahrt - 100°-Senkschraube mit  
Flügelkreuzschlitz, mittlere Gewindelänge, aus  
legiertem Stahl, verkadmet - Klasse: 1 100 MPa (bei  
Raumtemperatur)/235 °C

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.

CEN members are the national standards bodies of 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 United Kingdom.

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**

<b>Contents</b>		Page
<b>European foreword</b> .....		3
<b>1</b>	<b>Scope</b> .....	4
<b>2</b>	<b>Normative references</b> .....	4
<b>3</b>	<b>Terms and definitions</b> .....	5
<b>4</b>	<b>Required characteristics</b> .....	5
<b>4.1</b>	<b>Configuration — Dimensions — Masses</b> .....	5
<b>4.2</b>	<b>Tolerances of form and position</b> .....	5
<b>4.3</b>	<b>Materials</b> .....	5
<b>4.4</b>	<b>Surface treatment</b> .....	5
<b>5</b>	<b>Designation</b> .....	9
<b>6</b>	<b>Marking</b> .....	9
<b>7</b>	<b>Technical specification</b> .....	9
<b>7.1</b>	<b>General</b> .....	9
<b>7.2</b>	<b>Approval of manufacturers</b> .....	10
<b>7.3</b>	<b>Qualification of screws</b> .....	10
<b>Bibliography</b> .....		11

## Document Preview

[oSIST prEN 4162:2024](https://standards.iteh.ai/catalog/standards/sist/3972ac6b-9242-4c9e-b00e-f8db39454d82/osist-pren-4162-2024)

<https://standards.iteh.ai/catalog/standards/sist/3972ac6b-9242-4c9e-b00e-f8db39454d82/osist-pren-4162-2024>

## European foreword

This document (prEN 4162:2024) 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, prior to its presentation to CEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 4162:2016.

This document includes the following significant technical changes with respect to EN 4162:2016:

- Clause 3 „Terms and definitions“ added;
- update of 4.3 „Surface treatment“;
- Table 3 has been updated with new drive code references.

**iTeh Standards**  
**(<https://standards.iteh.ai>)**  
**Document Preview**

[oSIST prEN 4162:2024](https://standards.iteh.ai/catalog/standards/sist/3972ac6b-9242-4c9e-b00e-f8db39454d82/osist-pren-4162-2024)

<https://standards.iteh.ai/catalog/standards/sist/3972ac6b-9242-4c9e-b00e-f8db39454d82/osist-pren-4162-2024>

**prEN 4162:2024 (E)****1 Scope**

This document specifies the characteristics of bolts, 100° countersunk normal head, offset cruciform recess, coarse tolerance normal shank, medium length thread, in alloy steel, cadmium plated.

Classification: 1 100 MPa<sup>1</sup>/235 °C<sup>2</sup>.

**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 2133:2020, *Aerospace series — Cadmium plating of steels with specified tensile strength  $\leq 1\,450$  MPa, copper, copper alloys and nickel alloys*

EN 2137, *Aerospace series — Steel FE-PL75 —  $1\,100\text{ MPa} \leq R_m \leq 1\,250\text{ MPa}$  — Bars —  $D_e \leq 100\text{ mm}$*

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

EN 3514:1997, *Steel FE-PL711 — Hardened and tempered —  $1\,100 \leq R_m \leq 1\,300\text{ MPa}$  — Bar and wire for bolts —  $D_e \leq 25\text{ mm}$*

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

ISO 4520:1981, *Chromate conversion coatings on electroplated zinc and cadmium coatings*

ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*

ISO 5856, *Aerospace — Screws, 100 degrees normal countersunk head, internal offset cruciform ribbed or unribbed drive, normal shank, short or medium length MJ threads, metallic material, coated or uncoated, strength classes less than or equal to 1 100 MPa — Dimensions*

ISO 7689, *Aerospace — Bolts, with MJ threads, made of alloy steel, strength class 1 100 MPa — Procurement specification*

ISO 7913, *Aerospace — Bolts and screws, metric — Tolerances of form and position*

ISO 14275, *Aerospace — Drives, internal, offset cruciform, ribbed — Metric series*

ISO 14276, *Aerospace — Drives, internal, offset cruciform — Metric series*

TR 3775, *Aerospace series — Bolts and pins — Materials*

<sup>1</sup> Minimum tensile strength of the material at ambient temperature.

<sup>2</sup> Maximum temperature that the bolt can withstand without continuous change in its original characteristics, after return to ambient temperature. The maximum temperature is determined by the surface treatment.