

Aerospace series - Sleeves, tubular, protruding head,
in corrosion resisting steel, passivated (0,25 mm wall
thickness)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 3278:2026 sisaldab Euroopa standardi EN 3278:2026 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 04.03.2026.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 3278:2026 consists of the English text of the European standard EN 3278:2026.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 04.03.2026.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

Aerospace series - Sleeves, tubular, protruding head, in corrosion resisting steel, passivated (0,25 mm wall thickness)

Série aérospatiale - Douilles tubulaires, tête saillante en acier résistant à la corrosion, passivées (épaisseur de paroi 0,25 mm)

Luft- und Raumfahrt - Hülsen, überstehender Kopf, aus korrosionsbeständigem Stahl, passiviert (Wanddicke 0,25 mm)

This European Standard was approved by CEN on 2 February 2026.

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 3278:2026) 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 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 September 2026, and conflicting national standards shall be withdrawn at the latest by September 2026.

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 3278:2019.

This document includes the following significant technical changes with respect to EN 3278:2019:

- normative references updated;
- 4.3 and 4.4 expanded with additional options.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, 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 the United Kingdom.

1 Scope

This document specifies the characteristics and technical requirements for protruding head tubular sleeves, in corrosion resisting steel, which can be plain or provided with a series of annular grooves.

Passivated sleeves are for use in aerospace assemblies whose maximum operating temperature does not exceed 650 °C. It is important that the operating temperatures for aluminium pigmented sleeves do not exceed 230 °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 2175,¹ *Aerospace series — Heat resisting alloy FE-PA2602 (X4NiCrTiMoV26-15) — Solution treated and precipitation treated — Sheet, strip and plate — 0,5 mm ≤ a ≤ 10 mm — R_m ≥ 850 MPa*

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

EN 2516, *Aerospace series — Passivation of corrosion resisting steels and decontamination of nickel or cobalt base alloys*

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

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

NAS 4006,² *Aluminium coating*

SAE AMS2700,³ *Passivation of Corrosion Resistant Steels*

SAE AMS5525,³ *Steel, Corrosion and Heat-Resistant, Sheet, Strip, and Plate 15Cr — 25.5Ni — 1.2Mo — 2.1Ti — 0.006B — 0.30V 1 800 °F (982 °C) Solution Heat Treated*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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/>

3.1

crack

rupture in the material which may extend in any direction and which may be intercrystalline or transcrystalline in character

¹ Published as ASD STAN prEN at the date of publication of this document, available at: <https://www.asd-stan.org/>.

² Published by Aerospace Industries Association (AIA), available at: <https://www.aiaaerospace.org/>.

³ Published by Society of Automotive Engineers (SAE), available at: <https://www.sae.org/>.