# Aerospace series - Fasteners, externally threaded, in heat resisting steel FE-PA92HT (A286) - Classification: 900 MPa/650 °C, manufacturing method optional - Technical specification

EESTI STANDARDIMIS- JA AKREDITEERIMISKESKUS
ESTONIAN CENTRE FOR STANDARDISATION AND ACCREDITATION

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

| | |
|---|---|
| See Eesti standard EVS-EN 3043:2025 sisaldab Euroopa standardi EN 3043:2025 ingliskeelset teksti. | This Estonian standard EVS-EN 3043:2025 consists of the English text of the European standard EN 3043:2025. |
| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 24.12.2025. | Date of Availability of the European standard is 24.12.2025. |
| Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest. | The standard is available from the Estonian Centre for Standardisation and Accreditation. |



Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

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English Version

# Aerospace series - Fasteners, externally threaded, in heat resisting steel FE-PA92HT (A286) - Classification: 900 MPa/650 °C, manufacturing method optional - Technical specification

Série aérospatiale - Éléments de fixation à filetage extérieur, en acier résistant à chaud FE-PA92HT (A286) - Classification : 900 MPa/650 °C, mode de fabrication non imposé - Spécification technique

Luft- und Raumfahrt - Verbindungselemente mit Außengewinde aus hochwarmfestem Stahl FE-PA92HT (A286) - Klasse: 900 MPa/650 °C, Herstellverfahren nach Wahl - Technische Lieferbedingungen

This European Standard was approved by CEN on 25 August 2025.

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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.

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.

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

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## European foreword

This document (EN 3043:2025) 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 June 2026, and conflicting national standards shall be withdrawn at the latest by June 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 3043:2008.

This document includes the following significant technical changes with respect to EN 3043:2008:

— Table 1 “Technical requirements and test methods” has been updated.

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 technical and quality assurance requirements for externally threaded fasteners in material FE-PA92HT (A286) of tensile strength class 900 MPa at room temperature, maximum test temperature of material 650 °C, either manufactured by machining from bar or forging.

Primarily for aerospace applications, it is applicable to such externally threaded fasteners when referenced on the product standard or drawing.

# 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 2398, *Aerospace series — Heat resisting steel FE-PA2601 (X6NiCrTiMoV26-15) — $R_m$ ≥ 900 MPa — Bars for machined bolts — D ≤ 25 mm*

EN 2399, *Aerospace series — Heat resisting steel FE-PA2601 (X4NiCrTiMoV26-15) — $R_m$ ≥ 900 MPa — Bars for forged bolts — D ≤ 25 mm*

EN 3639, *Aerospace series — Heat resisting alloy X6NiCrTiMoV26-15 (1.4980) — Softened and cold worked — Wires for forged fasteners — D ≤ 15 mm — 900 MPa ≤ $R_m$ ≤ 1 100 MPa*

ISO 3452-1, *Non-destructive testing — Penetrant testing — Part 1: General principles*

ISO 7961, *Aerospace — Bolts — Test methods*

# 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**
**production batch**
quantity of finished parts fabricated by the same process from a single material cast (single heat of alloy), having the same basic part number and diameter, heat treated together to the same specified condition and produced as one continuous run

**3.2**
**inspection lot**
consignment of parts from a single production batch of the same part number which completely defines the part