

**Aerospace series — Externally threaded
fastener, 100° countersunk normal head,
Spiral Drive Recess — Classification: 1 100
MPa (at ambient temperature)/425 °C**

National foreword

This British Standard is the UK implementation of EN 4853:2022.

The UK participation in its preparation was entrusted to Technical Committee ACE/12, Aerospace fasteners and fastening systems.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

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English Version

Aerospace series - Externally threaded fastener, 100°
countersunk normal head, Spiral Drive Recess -
Classification: 1 100 MPa (at ambient temperature)/425
°C

Série aérospatiale - Élément de fixation à filetage
extérieur, tête fraisée normale 100°, empreinte en
spirale - Classification : 1 100 MPa (à température
ambiante)/425 °C

Luft- und Raumfahrt - Verbindungselement mit
Außengewinde, 100° Senkkopf, mit Spiral-Antrieb -
Klasse: 1 100 MPa (bei Raumtemperatur)/425 °C

This European Standard was approved by CEN on 10 January 2022.

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European foreword

This document (EN 4853:2022) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-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 ASD, 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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

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Introduction

Aerospace and Defence Standardisation (ASD-STAN) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent “Spiral Drive System for Threaded Fasteners” EP1025370B1.

ASD-STAN takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured ASD-STAN that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with ASD-STAN. Information may be obtained from:

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1 Scope

This document specifies the characteristics of externally threaded fasteners, 100° countersunk normal head, Spiral Drive Recess, for aerospace applications.

Classification: 1 100 MPa¹/425 °C².

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, *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 2491, *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*

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

EN 3021, *Aerospace series — Molybdenum disulphide dry film lubricants graphite and halogen free — Technical specification*

EN 3514, *Steel FE-PL711 — hardened and tempered — $1\,100 \leq R_m \leq 1\,300\text{ MPa}$ — Bar and wire for bolts — $D_e \leq 25\text{ mm}$ ³*

EN 3761, *Aerospace series — Heat resisting alloy FE-PA2601 — Softened and cold worked — Bar for forged fasteners — $D \leq 50\text{ mm}$ — $1\,100\text{ MPa} \leq R_m \leq 1\,300\text{ MPa}$*

EN 3813, *Aerospace series — Titanium alloy TI-P64001 (Ti-6Al-4V) — Annealed — Bar and wire for forged fasteners — $D_e \leq 50\text{ mm}$*

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

EN 4609, *Aerospace series — Spiral drive recesses for threaded fasteners — Geometrical definition and technical requirements*

ISO 3161, *Aerospace — UNJ threads — General requirements and limit dimensions*

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

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

¹ Minimum tensile strength of the material at ambient temperature.

² Maximum temperature that the screw can withstand without continuous change in its original characteristics, after return to ambient temperature. The maximum temperature is determined by the material.

³ Published as ASD-STAN Prestandard at the date of publication of this standard by AeroSpace and Defence Industries Association of Europe — Standardization (ASD-STAN) (www.asd-stan.org).