

Aerospace series - Screw, 100° countersunk normal head, Spiral Drive Recess, close tolerance normal shank, short thread, in titanium alloy, aluminium IVD coated - Classification: 1 100 MPa (at ambient temperature)/425 °C

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 4849:2022 sisaldab Euroopa standardi EN 4849:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 4849:2022 consists of the English text of the European standard EN 4849:2022.
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.
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English Version

**Aerospace series - Screw, 100° countersunk normal head,
Spiral Drive Recess, close tolerance normal shank, short
thread, in titanium alloy, aluminium IVD coated -
Classification: 1 100 MPa (at ambient temperature)/425
°C**

Série aérospatiale - Vis à tête fraisée normale 100°,
empreinte en spirale, tige normale à tolérance large,
filetage court, en alliage de titane, revêtue d'aluminium
IVD - Classification : 1 100 MPa (à température
ambiante)/425 °C

Luft- und Raumfahrt - 100° Senkschraube mit Spiral
Antrieb, enge Schafttoleranz, kurzes Gewinde, aus
Titanlegierung, Aluminium IVD beschichtet - 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 4849:2022) 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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

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.

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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:

Phillips Screw Company
301 Edgewater Drive, Suite 320
Wakefield, Massachusetts 01880
USA

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. ASD-STAN shall not be held responsible for identifying any or all such patent rights.

1 Scope

This document specifies the characteristics of externally threaded fasteners, 100° countersunk normal head, Spiral Drive Recess, close tolerance normal shank, short thread, in titanium alloy, aluminium IVD coated, 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 2424, *Aerospace series — Marking of aerospace products*

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

EN 4016, *Aerospace series — Oversized bolts*³

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

EN 6117, *Aerospace series — Specification for lubrication of fasteners with cetyl alcohol*³

EN 6118, *Aerospace series — Process specification — Aluminium base protection for fasteners*³

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

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

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

ISO 9152, *Aerospace — Bolts with MJ threads, in titanium alloys, strength class 1 100 MPa — Procurement specification*

MIL-DTL-5541, *Chemical Conversion Coatings on Aluminum and Aluminum Alloys*⁴

¹ Minimum tensile strength of the material at ambient temperature.

² Maximum temperature that the externally threaded fastener 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).

⁴ Published by: Department of Defense (DoD), The Pentagon, Washington, D.C. 20301, USA.