

### SLOVENSKI STANDARD SIST EN 4833:2018

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Aeronavtika - Cevni priključek 24° Konica do 35 000 kPa (5080 psi) Navojni priključek z zapornim obročem - Brez razširjenega končnika - Palčne mere - Ekstra fin navojni korak

Aerospace series - Pipe coupling 24° Cone up to 35 000 kPa (5 080 psi) Ring-locked fitting - Flareless End - Inch Series - Extra Fine Thread Pitch

Luft- und Raumfahrt - Rohrverschraubung 24° Konus bis 35 000 kPa (5 080 psi) gerade Anschlussverschraubung mit Sicherungsring - Inch-Reihe - extra feine Gewindesteigung (standards.iteh.ai)

Série aérospatiale - Système de raccordement interface conique 24° jusqu à 35 000 kPa (5 080 psi) Raccord à implanter avec bague de sécurité à Série inche Filetage à pas extra-fin

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Ta slovenski standard je istoveten z: EN 4833:2018

ICS:

49.080 Letalski in vesoljski Aerospace fluid systems and

hidravlični sistemi in deli components

SIST EN 4833:2018 en,fr,de

**SIST EN 4833:2018** 

## iTeh STANDARD PREVIEW (standards.iteh.ai)

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM EN 4833

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ICS 49.080

#### **English Version**

# Aerospace series - Pipe coupling 24° Cone up to 35 000 kPa (5 080 psi) Ring-locked fitting - Flareless End - Inch Series - Extra Fine Thread Pitch

Série aérospatiale - Système de raccordement interface conique 24° jusqu à 35 000 kPa (5 080 psi) Raccord à implanter avec bague de sécurité - Série inch - Filetage à pas extra-fin Luft- und Raumfahrt - Rohrverschraubung 24° Konus bis 35 000 kPa (5 080 psi) gerade Anschlussverschraubung mit Sicherungsring - Inch-Reihe - extra feine Gewindesteigung

This European Standard was approved by CEN on 3 December 2017.

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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, UST EN 4833 2018

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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#### **European foreword**

This document (EN 4833:2018) 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 January 2019, and conflicting national standards shall be withdrawn at the latest by January 2019.

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

This European Standard is co-owned standard and a functional equivalent of AS5550. There should be no technical objection to use AS5550 as replacement of EN 4833 parts. Table 3 shows the equivalent cross reference of EN 4833 part numbers to AS5550 part numbers. Further revisions to this standard shall be coordinated with the SAE committee.

European standards use the International System of units (SI); however, large segments of the aerospace industry make use of other measurement systems as a matter of common working practice. All dimensions and units used in this standard are given in SI units, with other units also indicated for the convenience of the user.

The decimal sign used in European standards is the comma (","); however, the comma is not used in common working practice with non-SI dimensions. Therefore, in common with many other aerospace standards, the decimal point (".") is used in this standard when providing dimensions in inch-pound units.

NOTE The use of non-SI units and the decimal point in this standard does not constitute general acceptance of measurement systems other than SI within European standards.

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#### 1 Scope

This European Standard specifies the dimensions, tolerances, required characteristics and the mass of an adaptor, flareless tube end EN 6123, ring locked type, for use in 35 000 kPa (5 080 psi) working pressure systems.

#### 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 3311, Aerospace series — Titanium alloy TI-P64001 (Ti-6Al-4V) — Annealed — Bar for machining D < 110 mm

EN 3314, Aerospace series — Titanium alloy TI-P64001, solution treated and aged; bar for machining  $D \le 75 \text{ mm}$ 

EN 4315, Aerospace series — Heat resisting alloy FE-PA2601 (X6NiCrTiMoV26-15) — Solution treated and precipitation treated, bar and section a or D  $\leq$  100 mm,  $R_{\rm m} \geq$  900 MPa

EN 4317, Aerospace series — Heat resisting alloy FE-PA2601 (X6NiCrTiMoV26-15) — Non heat treated, forging stock a or  $D \le 200 \text{ mm}$ 

EN 4832, Aerospace series — Pipe coupling 24 Cone up to 35 000 kPa (5 080 psi) Ring-locked fitting and Ring-locked fitting-reducer — Inch Series — Technical specification 1)4 db-ae4c-

EN 4835, Aerospace series — Installation and removal requirements for Ring locked fitting and reducer, 24° Cone up to 35 000 kPa (5 080 psi) — Inch Series<sup>1)</sup>

EN 6123, Aerospace series — Fitting end, 24° internal cone, external thread, flareless type — Extra fine thread pitch — Inch series — Design standard

ISO 1302, Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation

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

ISO 4287, Geometrical Product Specification (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters

AMS 2486, Conversion coating of titanium alloys fluoride-phosphate type<sup>2</sup>)

AMS 2488, Anodic treatment — titanium and titanium alloys solution pH 13 or higher<sup>2)</sup>

AMS 2700, Passivation of corrosion resistant steels<sup>2)</sup>

<sup>1)</sup> Published as ASD-STAN Prestandard at the date of publication of this standard (www.asd-stan.org).

<sup>2)</sup> Published by: SAE International (www.sae.org).

AMS 5731, Steel, corrosion and heat resistant, bars, forgings, tubing, and rings  $15Cr\ 25.5Ni\ 1.2Mo\ 2.1Ti\ 0.006B\ 0.30V$ , consumable electrode melted,  $1\ 800\ ^{\circ}F$  (982  $^{\circ}C$ ) solution heat treated<sup>2</sup>)

AMS 5732, Steel, corrosion and heat restant, bars, wire, forgings, tubing and rings  $15Cr\ 25.5Ni\ 1.2Mo\ 2.1Ti\ 0.006B\ 0.30V$  consumable electrode melted,  $1\ 800\ ^{\circ}F$  (982  $^{\circ}C$ ), solution and precipitation heat treated<sup>2</sup>)

AMS 5734, Steel, corrosion and heat resistant, bars, forgings, and tubing  $15Cr\ 25.5Ni\ 1.2Mo\ 2.1Ti\ 0.006B\ 0.30V$ , consumable electrode melted,  $1\ 650\ ^{\circ}F\ (899\ ^{\circ}C)$  solution heat treated<sup>2</sup>)

AMS 5737, Steel, corrosion and heat resistant, bars, wire, forgings and tubing  $15Cr\ 25.5Ni\ 1.2Mo\ 2.1Ti\ 0.006B\ 0.30V$ , consumable electrode melted,  $1\ 650\ ^{\circ}F$  (899  $^{\circ}C$ ), solution and precipitation heat treated<sup>2</sup>)

AMS 5853, Steel, corrosion and heat resistant, bars and wire 15Cr 25.5Ni 1.2Mo 2.1Ti 0.006B 0.30V, consumable electrode melted  $1\,800\,^{\circ}\text{F}$  (982  $^{\circ}\text{C}$ ) solution treated and work-strengthened 160 ksi (1 103 MPa) tensile strength<sup>2</sup>)

#### 3 Requirements

### 3.1 Configuration, Dimensions, Tolerances and Masspreview

The configuration, dimensions, tolerances and mass shall conform to Figure 1 and Table 2.

Dimensions are expressed in millimetres (inch),

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Unless otherwise specified, the following tolerances are applicable:

- Linear dimensions  $\pm 0.13$  mm ( $\pm 0.005$  0 in);
- Angular tolerances ±0 degrees° 30 minutes';
- Break edges 0,08 mm (0.003 0 in ) to 0,38 mm (0.015 0 in).

#### 3.2 Material, Heat and Surface Treatment

The material, heat and surface treatment shall be in accordance with Table 1.

Table 1 — Material, heat and surface treatment

Element	Material	Heat treatment	Surface treatment		
Adapter	Titanium alloy type Ti-6Al-4V according to EN 3311 or EN 3314 <sup>a</sup>	130 KSI UTS min.	Anodic treatment according to AMS 2488, type 2 or fluoride-phosphate conversion according to AMS 2486		
Lockring	CRES A286 according to AMS 5731, AMS 5732, or EN 4315, EN 4317, AMS 5734, AMS 5737 or AMS 5853	34 to 40 HRC	Passivated according to AMS 2700, Type 2 or 8. White colour PTFE Coating for pressure class identification		
a Standards are equivalent to AMS 4928 or AMS 4965 or AMS 4967.					

#### 3.3 Surface texture

#### 3.3.1 General

Surface texture shall be in accordance with ISO 4287 PREVIEW

Symbols shall be in accordance with 150 1302rds.iteh.ai)

#### 3.3.2 Surface roughness

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Unless otherwise specified, the following surface roughness is applicable:

- Machined surfaces shall be 3,175 μm (125 μin) Ramax;
- Sealing surface shall be 1,6 μm (63 μin) Ramax.

#### 3.4 Sealing areas

Sealing surfaces shall have no visible defects.

#### 3.5 Installation

Fitting assembly shall be installed according to EN 4835 (equivalent to AS5551).