



SLOVENSKI STANDARD SIST EN 4018:2009

01-november-2009

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Aerospace series - Pipe coupling 8°30' in titanium alloy - Elbows 90° with thrust wire nut

Luft- und Raumfahrt - Rohrverschraubung 8°30' aus Titanlegierung -
Winkelverschraubungen 90° mit Mutter mit Schubdraht

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Série aérospatiale - Système de raccordement 8°30' en alliage de titane - Raccords
coudés à 90° avec écrou à jonc

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Ta slovenski standard je istoveten z: EN 4018:2009

ICS:

49.080

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Aerospace fluid systems and
components

SIST EN 4018:2009

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 4018

July 2009

ICS 49.080

Supersedes EN 4018:2001

English Version

Aerospace series - Pipe coupling 8°30' in titanium alloy - Elbows 90° with thrust wire nut

Série aérospatiale - Système de raccordement 8°30' en
alliage de titane - Raccords coudés à 90° avec écrou à jonc

Luft- und Raumfahrt - Rohrverschraubung 8°30' aus
Titanlegierung - Winkelverschraubungen 90° mit Mutter mit
Schubdraht

This European Standard was approved by CEN on 8 February 2009.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Foreword

This document (EN 4018:2009) 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 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 4018:2001.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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EN 4018:2009 (E)

1 Scope

This standard specifies the characteristics of elbows 90°, with thrust wire nut, for pipe couplings 8°30', in titanium alloy, for aerospace applications.

Nominal pressure: up to 28 000 kPa.

Temperature range: – 55 °C to 135 °C.

2 Normative references

The following referenced documents are indispensable for the application 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 2491 *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*
- EN 3264 *Aerospace series — Pipe coupling 8°30' in titanium alloy — Thrust wire nut*
- EN 3273 *Aerospace series — Pipe coupling 8°30' — Dynamic beam seal end for elbows, tees and crosses — Geometric configuration*
- EN 3274 *Aerospace series — Pipe coupling 8°30' — Thread end — Geometric configuration*
- EN 3275 *Aerospace series — Pipe coupling 8°30' up to 28 000 kPa — Dynamic beam seal — Metric series — Technical specification*
- EN 3311 *Titanium alloy TI-P63 — Annealed — $900 \leq RM \leq 1\,160$ MPa — Bar for machining — $DE \leq 150$ mm¹*
- EN 3312 *Titanium alloy TI-P63 — Annealed — $900 \leq 1\,160$ MPa — Forgings — $DE \leq 150$ mm¹*
- EN 3314 *Titanium alloy TI-P63 — Solution treated and aged — $RM \leq 1\,070$ MPa — Bar for machining — $DE \leq 50$ mm¹*
- EN 3315 *Titanium alloy TI-P63 — Solution treated and aged — $RM \leq 1\,070$ MPa — Forgings — $DE \leq 50$ mm¹*
- EN 4032 *Aerospace series — Pipe coupling 8°30' in titanium alloy — Thrust wire*
- EN 9133 *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*
- ISO 5855-3 *Aerospace — MJ threads — Part 3: Limit dimensions for fittings for fluid systems*

¹ In preparation at the date of publication of this standard.

3 Required characteristics

3.1 Configuration — Dimensions — Mass

According to Figure 1 and Table 1. The values apply before lubricating.

Dimensions not specified are at the manufacturer's option provided that the qualification and acceptance requirements of EN 3275, type II are met.

3.2 Surface roughness

According to Figure 1, unless otherwise specified in the design documentation.

3.3 Materials

According to EN 3311 or EN 3314, EN 3312 or EN 3315.

3.4 Surface treatment

Lubrication: according to EN 2491, on thread, sealing face and contact area between thrust wire and coupling.

Prior to application of the lubricant, the surface shall be abrasive blasted using non-metallic grit.

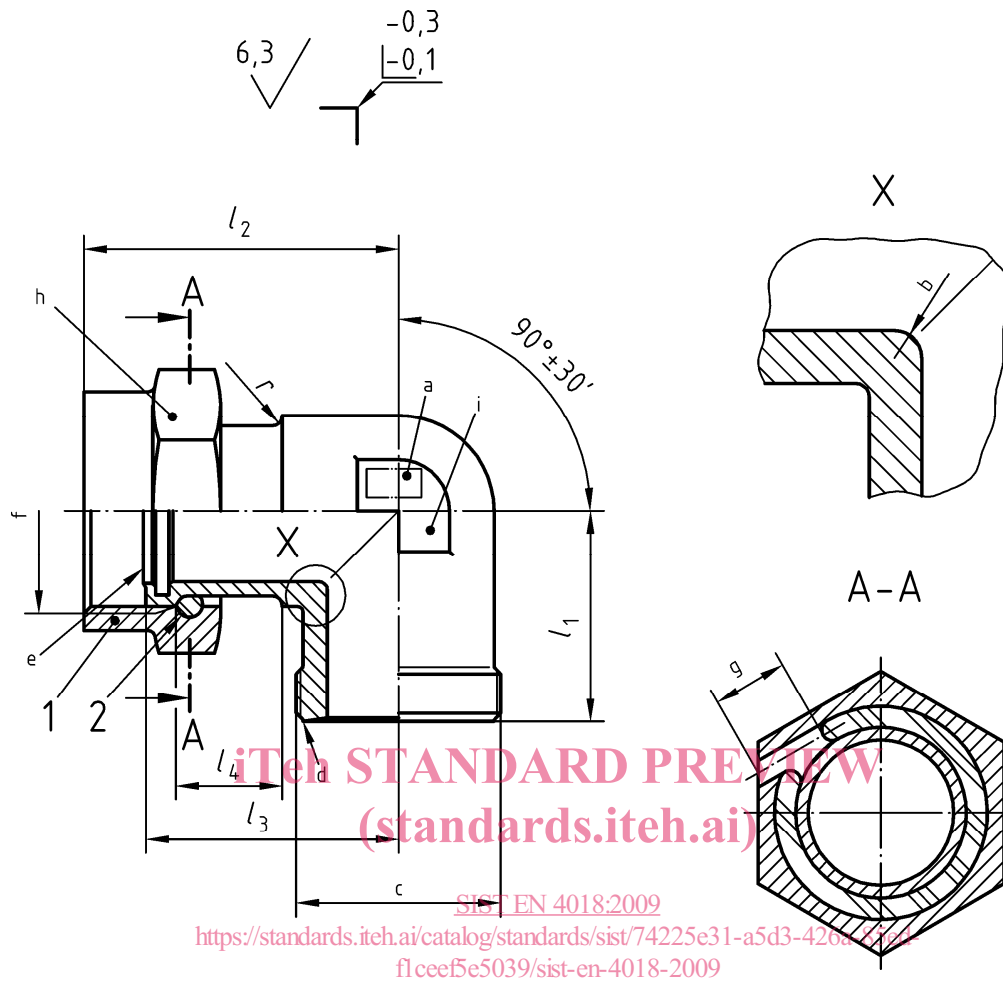
Film thickness 0,005 mm to 0,013 mm.

3.5 Internal surface finishing

Finishing shall give a radius R of 0,3 mm to 1,0 mm and a surface roughness of 0,8 μm . Hand debarring is not permitted.

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Dimensions in millimetres

**Key**

- | | | | |
|---|---|---|--------------------|
| 1 | Nut according to EN 3264 | f | Thread 2 |
| 2 | Thrust wire according to EN 4032 | g | Fully inserted |
| a | Area for marking | h | Across flats s_1 |
| b | Radius of the complete internal junction shall be comprised between $R\ 0,3$ to $1,0$ | i | Across flats s_2 |
| c | Thread 1 | | |
| d | According to EN 3274, form C | | |
| e | According to EN 3273 | | |

Figure 1