SLOVENSKI STANDARD
SIST EN 4023:2014

01-april-2014

Nadomešča:
SIST EN 4023:2004

Aeronavtika - Cevni priključek 8°30' iz titanove zlitine - Kotni cevni priključek 45°

Aerospace series - Pipe coupling 8°30' in titanium alloy - Elbows 45°

Luft- und Raumfahrt - Rohrverschraubung 8°30' aus Titanlegierung - Winkelverschraubungen 45°

Série aérospatiale - Système de raccordement 8°30' en alliage de titane - Raccords coudés à 45°

Ta slovenski standard je istoveten z: EN 4023:2010

ICS:

49.025.30	Titan	Titanium
49.080	Letalski in vesoljski hidravlični sistemi in deli	Aerospace fluid systems and components

SIST EN 4023:2014 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 4023

October 2010

ICS 49.080

Supersedes EN 4023:2001

English Version

Aerospace series - Pipe coupling 8°30' in titanium alloy - Elbows 45°

Série aérospatiale - Système de raccordement 8°30' en alliage de titane - Raccords coudés à 45°

Luft- und Raumfahrt - Rohrverschraubung 8°30' aus Titanlegierung - Winkelverschraubungen 45°

This European Standard was approved by CEN on 2 July 2010.

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

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Foreword

This document (EN 4023:2010) 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of an identical text or by endorsement, at the latest by April 2011, and conflicting national standards shall be withdrawn at the latest by April 2011.

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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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies the characteristics of elbows 45°, 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 3274:2010, *Aerospace series — Pipe coupling 8°30' — Thread end — Geometric configuration*

EN 3275:2002, *Aerospace series — Pipe coupling 8°30' up to 28 000 kPa — Dynamic beam seal — Metric series — Technical specification*

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

EN 3312, *Aerospace series — Titanium alloy TI-P64001 — Grade 2 — Annealed — Forgings — $D_e \leq 150$ mm* [1)]

EN 3314, *Aerospace series — Titanium alloy TI-P64001 — Solution treated and aged — Bar for machining — $D \leq 75$ mm* [1)]

EN 3315, *Aerospace series — Titanium alloy TI-P64001 — Solution treated and aged — Forgings — $D_e \leq 75$ mm* [1)]

ISO 5855-3, *Aerospace — MJ threads — Part 3: Limit dimensions for fittings for fluid systems*

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 3275:2002, type II are met.

3.2 Surface roughness

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

1) 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).

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 threads and sealing faces.

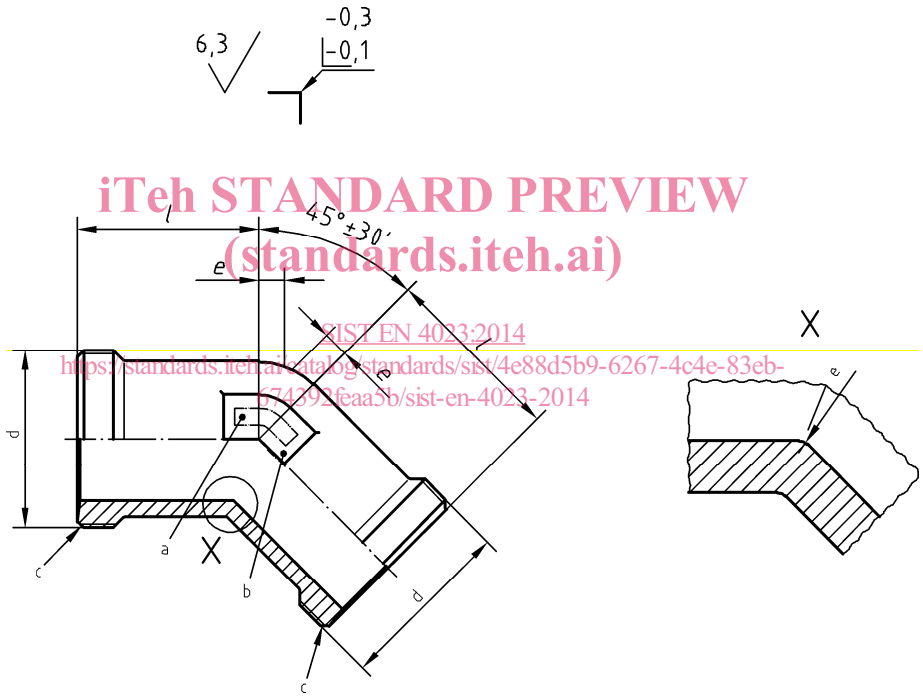
Prior to application of the lubricant, the surface shall be abrasive blasted using non-metallic grit.

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 deburring is not permitted.

Dimensions in millimetres



a Area for marking

b Across flats s

c According to EN 3274:2010, form C

d Thread

e Radius of the complete internal junction shall be between R 0,3 to 1,0

Figure 1

Table 1

Dimensions in millimetres

Code [a]	Thread [b] 4g6g	e [c]	l [c] ± 0,2	s [d] h13	Mass g/piece max.
05	MJ10 × 1	0,9	16,3	8	5,0
06	MJ12 × 1,25	1,0	17,8	9	7,5
08	MJ14 × 1,5	1,4	20,8	11	11,8
10	MJ16 × 1,5	1,8	21,8	13	15,2
12	MJ18 × 1,5	2,2	23,8	15	19,6
14	MJ20 × 1,5	2,4	23,8	16	23,9
16	MJ22 × 1,5	2,8	25,8	18	30,6
18	MJ24 × 1,5	3,2	27,8	21	38,6
20	MJ27 × 1,5	4,7	27,8	24	49,5
22	MJ30 × 1,5	4,3	30,8	27	64,0
25	MJ33 × 1,5	4,6	32,8	30	86,0
28	MJ36 × 1,5	5,3	34,8	34	105,0
32	MJ39 × 1,5	5,0	36,4	36	113,3

[a] Corresponds to the pipe nominal outside diameter.

[b] According to ISO 5855-3.

[c] Drill depth dimension = $l + e$.

[d] Across flats.

4 Designation

EXAMPLE

Description block	Identity block
ELBOW 45°	**EN4023-05**

Number of this standard

Code (see Table 1)

NOTE If necessary, the code I9005 shall be placed between the description block and the identity block.

5 Marking

According to EN 2424:2008, style A and Figure 1.

6 Technical specification

According to EN 3275:2002, type II.