SLOVENSKI STANDARD
SIST EN 4073:2016

01-junij-2016

Nadomešča:

SIST EN 4073:2010

Aeronavtika - Vijaki, valjasta glava, šestzoba vdolbina, široka toleranca, srednja navojna dolžina, iz legiranega jekla, prevlečeni s kadmijem - Klasifikacija: 1100 MPa (pri temperaturi okolice)/235 °C

Aerospace series - Screws, pan head, hexalobular recess, coarse tolerance shank, medium length thread, in alloy steel, cadmium plated - Classification: 1 100 MPa (at ambient temperature) / 235 °C

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Luft- und Raumfahrt - Flachkopfschrauben, mit Innensechsrund, mit mittlerer Gewindelänge, aus legiertem Stahl, verkadmet - Klasse: 1 100 MPa (bei Raumtemperatur) / 235 °C

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Série aérospatiale - Vis à tête cylindrique, à empreinte six lobes, tige à tolérance large, filetage moyen, en acier allié, cadmiées - Classification: 1 100 MPa (à température ambiente) / 235 °C

Ta slovenski standard je istoveten z: EN 4073:2016

ICS:

49.030.20 Sorniki, vijaki, stebelni vijaki Bolts, screws, studs

SIST EN 4073:2016 en,fr,de

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 4073

March 2016

ICS 49.030.20

Supersedes EN 4073:2009

English Version

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This European Standard was approved by CEN on 22 August 2015.

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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.

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

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SIST EN 4073:2016

Contents

Page

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 4073:2016
https://standards.iteh.ai/catalog/standards/sist/61c81837-fee3-46fa-972e-59768cd21661/sist-en-4073-2016

SIST EN 4073:2016

European foreword

This document (EN 4073:2016) 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 European 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 2016, and conflicting national standards shall be withdrawn at the latest by September 2016.

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 4073:2009.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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1 Scope

This European Standard specifies the characteristics of screws, pan head, six lobe recess, coarse tolerance shank, medium length thread, in alloy steel, cadmium plated.

Classification: 1 100 MPa [1] / 235 °C [2].

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 ≤ 1450 MPa, copper, copper alloys and nickel alloys*

EN 2424, *Aerospace series — Marking of aerospace products*

EN 3911, *Aerospace series — Six lobe recess — Geometrical definition*

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defense Organizations*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

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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*

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ISO 7689, *Aerospace — Bolts, with MJ threads, made of alloy steel, strength class 1 100 MPa — Procurement specification*

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

TR 3775, *Aerospace series — Bolts and pins — Materials* [3]

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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 surface treatment.

3) Published as ASD-STAN Technical Report at the date of publication of this European Standard (http://www.asd-stan.org/).

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3 Required characteristics

3.1 Configuration – Dimensions – Masses

See Figure 1 and Table 1.

Dimensions and tolerances are expressed in millimetres and apply after surface treatment.

3.2 Tolerances of form and position

ISO 7913 and those specified in Figure 1 and Table 1.

3.3 Materials

TR 3775: alloy steel, classification 1 100 MPa

3.4 Surface treatment

EN 2133, thickness 8 µm to 14 µm, on all surfaces which can be contacted by a 20 mm diameter ball. On all other surfaces, a continuous deposit shall be present, but no value is specified.

Black colour option: code B.

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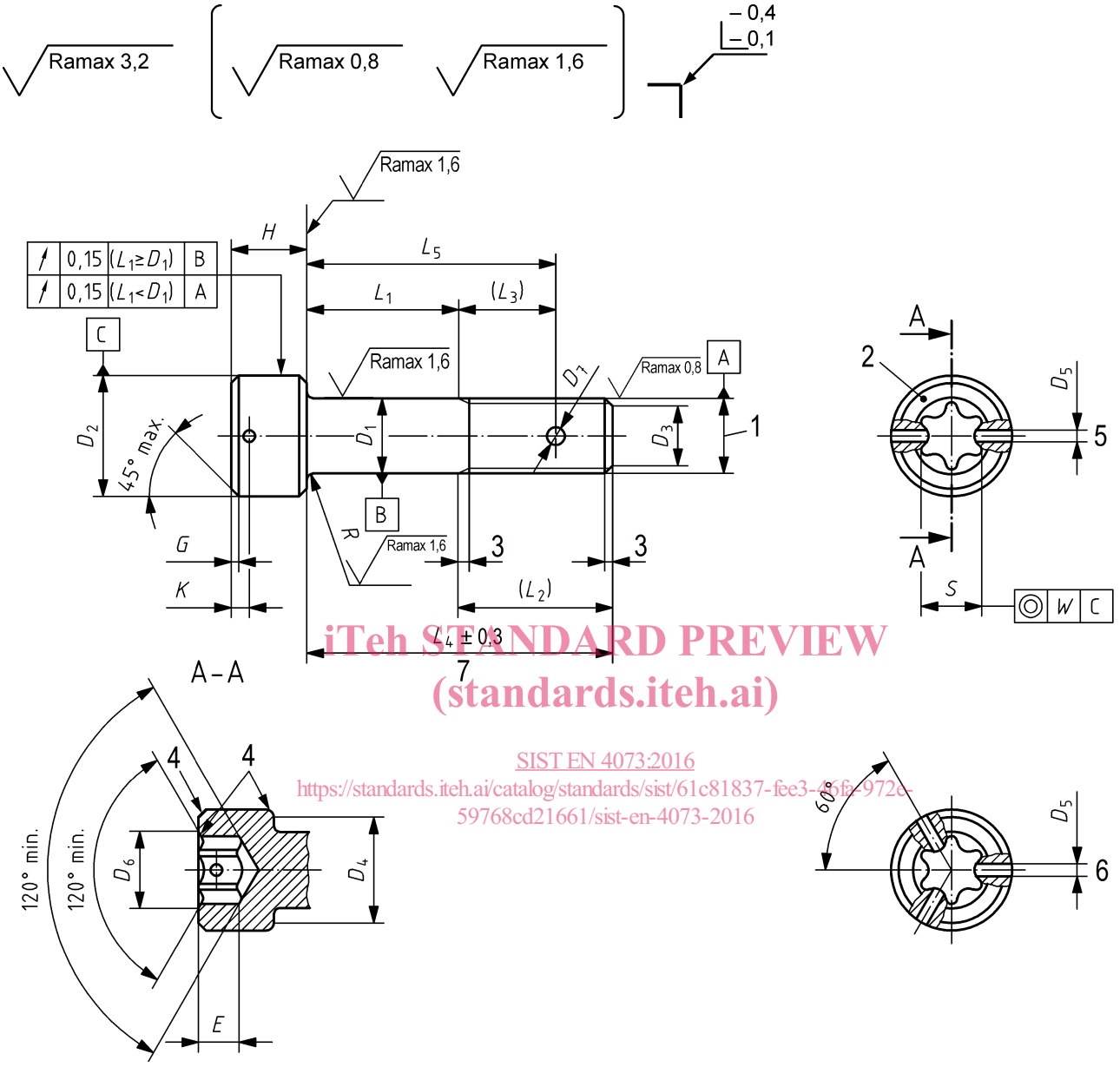
SIST EN 4073:2016

Dimensions in millimetres



iTeh STANDARD PREVIEW
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SIST EN 4073:2016
https://standards.iteh.ai/catalog/standards/sist/61c81837-fee3-46fa-972e-59768cd21661/sist-en-4073-2016

Key

1 Thread
2 Marking
3 Conforms to ISO 3353-1
4 Radius or chamfer
5 Two holes optional (see Table 2) for diameter codes 030 and 040
6 Three holes optional (see Table 2) for diameter codes 050 to 120
7 $L_4 = L_1 + (L_2)$

Figure 1

SIST EN 4073:2016

Table 1

Diameter code	Thread [a]	D_1	D_2	D_3		D_4	D_5	D_6	D_7	E		G
		h12	h13	nom.	Tol.	min.	H13	max.	H13	nom.	Tol.	
030	MJ3x0,5 - 4h6h	3	5,5	2,3	0 − 0,5	5,07	1,0	3,4	—	1,5	+ 0,2 0	0,3
040	MJ4x0,7 - 4h6h	4	7,0	3,0		6,53		5,2	1,1	2,0		0,4
050	MJ5x0,8 - 4h6h	5	8,5	3,4	± 0,5	8,03		5,8	1,5	2,5		0,5
060	MJ6x1 - 4h6h	6	10,0	4,2		9,38	1,4	6,3		3,0	+ 0,3 0	0,6
080	MJ8x1 - 4h6h	8	13,0	6,2		12,33		8,9	1,9	4,0		0,8
100	MJ10x1,25 - 4h6h	10	16,0	7,9		15,33	1,6	10,2	2,4	5,0	+ 0,5 0	1,0
120	MJ12x1,25 - 4h6h	12	18,0	9,8		17,23		13,8		6,0		1,2

Diameter code	H		K	$L_1 \pm 0,2$ [b,c]		L_2	L_3	R		W	Recess	Mass [d]	
	nom	Tol.	± 0,1	Length code	nom.			max.	min.		EN 3911 code	e	f
030	3	h13	0,9	002 to 030	2 to 30	7,5	—	0,4	0,2	—	10	1,04	0,055
040	4		1,4	002 to 040	2 to 40	10,0	6,0			0,22	25	2,26	0,100
050	5		1,6	003 to 050	3 to 50	12,0	7,5	0,5	0,3		27	4,55	0,153
060	6	h14	2,0	003 to 060	3 to 60	14,0	8,5	0,7	0,5		30	6,95	0,222
080	8		2,4	004 to 080	4 to 80	16,5	10,5			0,22	45	15,44	0,395
100	10			005 to 100	5 to100	20,5	13,0	0,8	0,6		50	29,30	0,616
120	12			006 to 120	6 to120	22,5	14,5	0,9			55	43,10	0,887

[a] In accordance with ISO 5855-2.

[b] Increments:
1 for $L_1 \leq 30$;
2 for $30 < L_1 \leq 100$;
4 for $L_1 > 100$.

[c] If greater lengths are required, they shall be chosen using the above increments. The length code corresponds to the length L_1, completed by one or two zeros to the left, where necessary, to obtain a three digit code.

[d] Approximate values (kg/1 000 pieces), calculated on the basis of 7,85 kg/dm^3, given for information purposes only. They apply to screws without holes.

[e] Value for head and first L_4.

[f] Increase for each additional millimetre of L_4.

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