



SLOVENSKI STANDARD

SIST EN 3323:2009

01-maj-2009

Aeronavtika - Sorniki z dvojno šestrobo glavo, tanko steblo, dolg navoj - iz toplotnoodpornega jekla FE-PM 38 (FV 535) - Klasifikacija: 1000 MPa/550 °C

Aerospace series - Bolts with double hexagon head, relieved shank, long thread - In heat resisting steel FE-PM 38 (FV 535) - Classification: 1 000 MPa/550 °C

Luft- und Raumfahrt - Zwölfkantschrauben, Dünnschaft, langes Gewinde, - Aus hochwärmfestem Stahl FE-PM 38 (FV 535) - Klasse 1 000 MPa/550 °C

Série aérospatiale - Vis à tête bihexagonale, à tige réduite, à filetage long, en acier résistant à chaud FE-PM38 (FV535) - Classification : 1 000 MPa/550 °C

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Ta slovenski standard je istoveten z: EN 3323:2009

ICS:

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

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en

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EUROPEAN STANDARD

EN 3323

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2009

ICS 49.030.20

English Version

**Aerospace series - Bolts with double hexagon head, relieved
shank long thread, - In heat resisting steel FE-PM 38 (FV 535) -
Classification: 1 000 MPa/550 °C**

Série aérospatiale - Vis à tête bihexagonale, à tige réduite,
à filetage long, en acier résistant à chaud FE-PM38
(FV535) - Classification : 1 000 MPa/550 °C

Luft- und Raumfahrt - Zwölfkantschrauben, Dünnschaft,
langes Gewinde, - Aus hochwarmfestem Stahl FE-PM 38
(FV 535) - Klasse: 1 000 MPa/550 °C

This European Standard was approved by CEN on 2 August 2008.

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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 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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Foreword

This document (EN 3323:2009) 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 August 2009, and conflicting national standards shall be withdrawn at the latest by August 2009.

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.

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 3323:2009 (E)**1 Scope**

This standard specifies the characteristics of double hexagon head bolts with relieved shank and long thread in heat resisting steel FM-PM 38, tensile strength class 1 000 MPa at room temperature. The maximum test temperature of the material is 550 °C.

These bolts are to be used in aerospace fastening systems, of parts made in titanium, mainly stressed in tension.

2 Normative references

- EN 2424 Aerospace series — Marking of aerospace products¹
- EN 2493 Aerospace series — Heat resisting steel FE-PM 38 — $1\ 000\ \text{MPa} \leq R_m \leq 1140\ \text{MPa}$ — Bars²
- EN 3302 Aerospace series - Bolts in heat resisting steel FE-PM1708 (FV535) - Classification: 1 000 MPa/550 °C - Technical specification¹
- ISO 3353-1 Aerospace — Lead and runout threads — Part 1: Rolled external threads
- ISO 4095 Aerospace — Bihexagonal drives — Wrenching configuration — Metric series
- ISO 5855-1 Aerospace — MJ Threads — Part 1: General requirements
- ISO 5855-2 Aerospace — MJ Threads — Part 2: Limit dimensions for bolts and nuts

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1 Published as ASD standard at the date of publication of this standard.

2 Published as ASD Prestandard at the date of publication of this standard.

3 Required characteristics

3.1 Configuration – Dimensions – Tolerances

The configuration shall be in accordance with the figure. Dimensions and tolerances shall conform to the values shown in the figure and in Tables 1 and 2.

3.2 Surface roughness

See the figure.

3.3 Material

Heat resisting steel FM-PM 38 to EN 2493.

3.4 Surface treatment

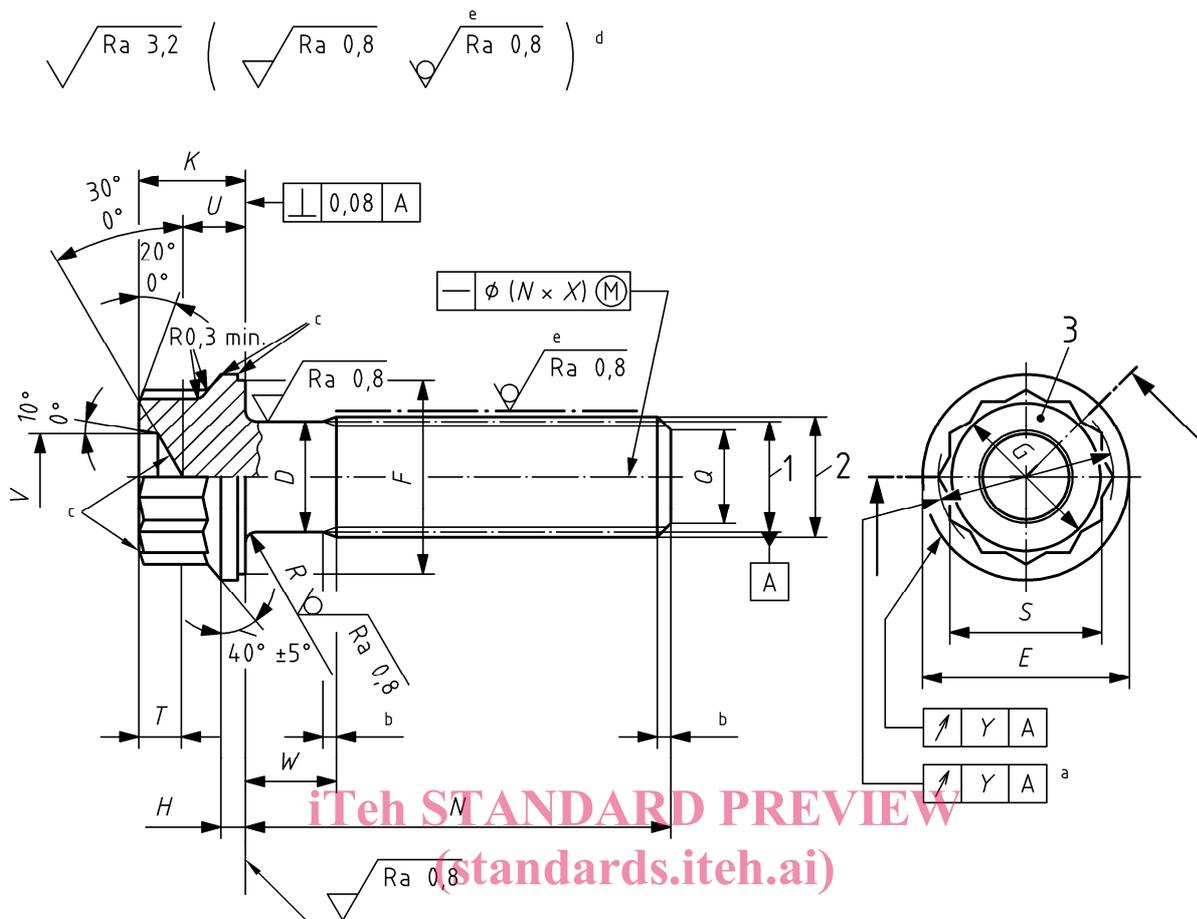
None.

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Key

- 1 Pitch ϕ
- 2 Thread ϕ
- 3 Marking
- 4 12 times
- 5 In accordance with ISO 3353-1
- 6 Shape in this area at manufacturer's option
- 7 0° to 10°
- 8 0° to 20°
- 9 0° to 30°
- 10 Break sharp edges 0,1 mm to 0,4 mm
- 11 Rolled

Figure 1 — Configuration

Table 1 — Dimensions

Dimensions in millimetres

Diameter code	Thread ^a	D	E 4	F	G	H	K	Q	R	5	S ^b	T	U	6	V	7	X	Y
8	9	± 0,13	max.	min.	min.	min.	Js 14	± 0,5	max.	min.	10	min.	max.	min.	max.	min.	11	12
050	MJ 5 x 0,8 – 4h6h	4,48	9,1	8,3	6,8	1	5,5	3,5	0,5	0,3	7	2	2,9	2,5	3,7	3,2	0,003	0,13
060	MJ 6 x 1 – 4h6h	5,35	10,6	9,8	7,8	1,2	6	4,2	0,7	0,5	8	2,3	3,2	2,8	4,6	4,1		0,15
070	MJ 7 x 1 – 4h6h	6,35	12,1	11,3	8,8	1,4	6,5	5,2			9	2,6	3,7	3,3	5,4	4,9		0,18
080	MJ 8 x 1 – 4h6h	7,35	13,6	12,8	9,8	1,6	7	6,2			10	2,8	4,1	3,7	5,7	5,2		0,2
100	MJ 10 x 1,25 – 4h6h	9,19	16,7	15,7	11,8	2	8	7,9			0,8	0,6	12	3,1	5,1	4,7	7,2	6,7
120	MJ 12 x 1,25 – 4h6h	11,19	A.1.1.1 9,9	A.1.1.1 8,8	A.1.1.1 3,7	A.1.1.1 ,4	A.1.1.1 ,2	A.1.1.1 ,9	A.1.1.1 ,9	14	3,5		6	5,6	8,5	8	12.1	0,3
^a In conformity with ISO 5855 parts 1 and 2. ^b Double hexagon wrenching profile to ISO 4095 on length T min.																		

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