
Aeronavtika - Elastični stebelni vijaki, široka toleranca, srednja navojna dolžina, iz toplotno in korozijsko odpornega jekla, z aluminijem pigmentiranim premazom - Klasifikacija: 1100 MPa (pri temperaturi okolice)/315 °C

Aerospace series - Studs, coarse tolerance reduced shank, medium length thread, in heat and corrosion resisting steel, with aluminium pigmented coating - Classification: 1100 MPa (at ambient temperature)/315 °C

Luft- und Raumfahrt - Stift-Dehnschrauben, mit mittlerer Gewindelänge, aus hochwarmfestem und korrosionsbeständigem Stahl, mit aluminiumpigmentierter Beschichtung - Klasse: 1100 Mpa (bei Raumtemperatur)/315 °C

Série aérospatiale - Goujons, fût à tolérance large, filetage moyen, en acier résistant à chaud et à la corrosion, avec revêtement alumino-organique - Classification: 1100 MPa (à température ambiante)/315 °C

Ta slovenski standard je istoveten z: EN 4312:2006

ICS:

49.025.20	Aluminij	Aluminium
49.030.20	Sorniki, vijaki, stebelni vijaki	Bolts, screws, studs

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 4312

June 2006

ICS 49.030.20

English Version

**Aerospace series - Studs, coarse tolerance reduced shank,
medium length thread, in heat and corrosion resisting steel, with
aluminium pigmented coating - Classification: 1 100 MPa (at
ambient temperature) / 315 °C**

Série aérospatiale - Goujons, fût à tolérance large, filetage moyen, en acier résistant à chaud et à la corrosion, avec revêtement aluminé-organique - Classification : 1 100 MPa (à température ambiante) / 315 °C

Luft- und Raumfahrt - Stift-Dehnschrauben, mit mittlerer Gewindelänge, aus korrosionsbeständigem und hochwärmfestem Stahl, mit Aluminium pigmentierte Beschichtung - Klasse: 1 100 Mpa (bei Raumtemperatur) / 315 °C

This European Standard was approved by CEN on 6 February 2006.

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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 Central Secretariat has the same status as the official versions.

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Foreword

This European Standard (EN 4312:2006) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 December 2006, and conflicting national standards shall be withdrawn at the latest by December 2006.

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.

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EN 4312:2006 (E)**1 Scope**

This standard specifies the characteristics of studs, close tolerance shank, medium length thread, in heat and corrosion resisting steel, with aluminium pigmented coating.

Classification: 1 100 MPa ¹⁾ / 315 °C ²⁾

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.

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.*

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

ISO 8168, *Aerospace — Corrosion- and heat-resisting steel bolts with strength classification 1 100 MPa and MJ threads — Procurement specification.*

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

EN 4474, *Aerospace series — Aluminium pigmented coatings — Coating methods.*³⁾

EN 9100, *Aerospace series — Quality management systems — Requirements (based on ISO 9001:2000) and Quality systems — Model for quality assurance in design, development, production, installation and servicing (based on ISO 9001:1994).*

TR 3775, *Aerospace series — Bolts and pins — Materials.*⁴⁾
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3 Required characteristics**3.1 Configuration – Dimensions – Masses**

See Figure 1 and Tables 1 and 2.

Dimensions and tolerances are expressed in millimetres and apply after coating.

3.2 Tolerances of form and position

See ISO 7913.

3.3 Materials

See TR 3775 (heat and corrosion resisting steel, strength class: 1 100 MPa).

1) Minimum tensile strength of the material at ambient temperature.

2) Maximum temperature that the stud can withstand without continuous change in its original characteristics, after return to ambient temperature. The maximum temperature is determined by the coating.

3) Published as AECMA Prestandard at the date of publication of this standard.

4) Published as AECMA Technical Report at the date of publication of this standard.

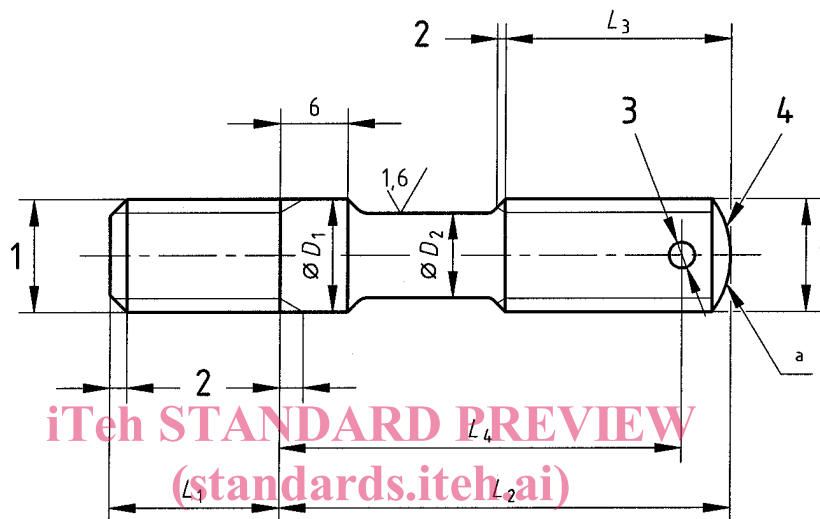
3.4 Surface treatments

EN 4474

After aluminium deposit, optional lubrication with cethylic alcohol (code E).

$\sqrt{3,2}$ $\left[\sqrt{1,6} \right]$ Values in micrometres apply prior to surface treatment.

Break sharp edges 0,1 to 0,4.



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Key

- 1 Thread
- 2 Conforms to ISO 3353-1
- 3 One hole diameter D_3 (optional)
- 4 Marking
- ^a Shape in this area at manufacturer's option

Figure 1

Table 1

Diameter code	Thread ^a	D_1	D_2^b	D_3	L_1	L_3	L_4
		h12	h12	H13		min.	+0,3 0
050	MJ5×0,8 – 4h6h	5	–	1	7,5	12	$L_2 - 2,5$
060	MJ6×1 – 4h6h	6	4,6	1,4	9	14	$L_2 - 3$
080	MJ8×1 – 4h6h	8	6	1,8	12	18	$L_2 - 3,5$
100	MJ10×1,25 – 4h6h	10	7,5	2,3	15	20	$L_2 - 4$
120	MJ12×1,25 – 4h6h	12	9,2		18	22	$L_2 - 4,5$

^a In accordance with ISO 5855-2

^b For MJ5 and lengths above the bold line: D_2 = thread major diameter.

Table 2

Diameter code		050	060	080	100	120
Length		Mass ^a	Mass ^a	Mass ^a	Mass ^a	Mass ^a
Code	L_2					
018	18	3,6	–	–	–	–
020	20	3,9	5,8	–	–	–
022	22	4,2	6,3	12,3	–	–
024	24	4,7	6,9	13,5	23	–
028	28	5,1	7,6	14,7	25	–
030	30	5,4	8,1	15,5	26	41
035	35	6,1	9,2	17,4	29	45
040	40	6,9	10,3	19	32	49
045	45	7,7	11,4	20	26	54
050	50	8,4	12,5	21	28	48
055	55	9,2	13,5	22	30	51
060	60	10	14,6	23	31	53
065	65	10,7	15,7	24	33	56
070	70	11,5	16,8	25	35	58
075	75	12,3	17,9	26	37	61
080	80	13,1	19	27	39	63
085	85	–	20,1	28	40	66
090	90	–	21,2	29	42	68
095	95	–	–	30	44	71
100	100	–	–	31	46	73
105	105	–	–	32	48	76
110	110	–	–	33	50	79

^a Approximate values (kg/1 000 pieces), calculated on the basis of 7,85 kg/dm³, given for information purposes only. They apply to studs without holes.