



SLOVENSKI STANDARD

SIST EN 3327:2008

01-september-2008

Aeronavtika - Sorniki, dvojna šestroba glava, ozka toleranca, srednja navojna dolžina, iz toplotnoodporne zlitine na nikljevi osnovi NI-P100HT (Inconel 718), brez prevleke - Klasifikacija: 1 275 MPa/650 °C

Aerospace series - Bolts, double hexagon head, close tolerance, medium thread length, in heat resisting nickel base alloy NI-P100HT (Inconel 718), uncoated - Classification: 1 275 MPa/650 °C

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Luft- und Raumfahrt - Zwölfkant-Passschrauben, mittlere Gewindelänge, aus hochwarmfester Nickelbasislegierung NI-P100HT (Inconel 718), blank - Klasse: 1 275 MPa/650 °C

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Série aérospatiale - Vis de précision à tête bihexagonale à filetage moyen en alliage résistant à chaud à base de nickel NI-P100HT (Inconel 718), non revêtu - Classification: 1 275 MPa/650 °C

Ta slovenski standard je istoveten z: EN 3327:2008

ICS:

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

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3327

June 2008

ICS 49.030.20

English Version

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medium thread length, in heat resisting nickel base alloy NI-
P100HT (Inconel 718), uncoated - Classification: 1 275 MPa/650
°C**

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NI-P100HT (Inconel 718), blank - Klasse: 1 275 MPa/650
°C

This European Standard was approved by CEN on 3 November 2007.

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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.

[SIST EN 3327:2008](https://standards.iteh.ai/catalog/standards/sist/39b49800-d59d-4e9f-836b-11d111111111/EN-3327-2008)

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Foreword

This document (EN 3327:2008) 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 December 2008, and conflicting national standards shall be withdrawn at the latest by December 2008.

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EN 3327:2008 (E)**1 Scope**

This standard specifies the dimensions of uncoated double hexagon head bolts, close tolerance, with MJ-thread, medium thread length, in heat resisting nickel base alloy NI-PH2601 for aerospace applications.

Maximum test temperature of the parts is 650 °C.

These bolts are to be used in aerospace fastening systems mainly stressed in shearing force.

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 2424:2008, *Aerospace series — Marking of aerospace products*

EN 2583, *Aerospace series — Bolts, MJ threads, in heat resisting nickel base alloy NI-PH2601 (Inconel 718) — Classification: 1 275 MPa (at ambient temperature)/650 °C — Technical specification*

EN 2952, *Aerospace series — Heat resisting alloy NI-PH2601 — Solution treated and cold worked — Bar for forged fasteners $D \leq 50$ mm, $1\ 270$ MPa $\leq R_m \leq 1550$ MPa¹*

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*

3 Required characteristics**3.1 Configuration, dimensions, tolerances, masses**

Configuration shall be in accordance with the figure. Dimensions, tolerances and masses shall conform to Figure 1 and Tables 1 and 2. Details of form, not stated are at the manufacturer's option.

3.2 Material

Heat resisting nickel base alloy NI-PH2601 according to EN 2952.

3.3 Surface treatment

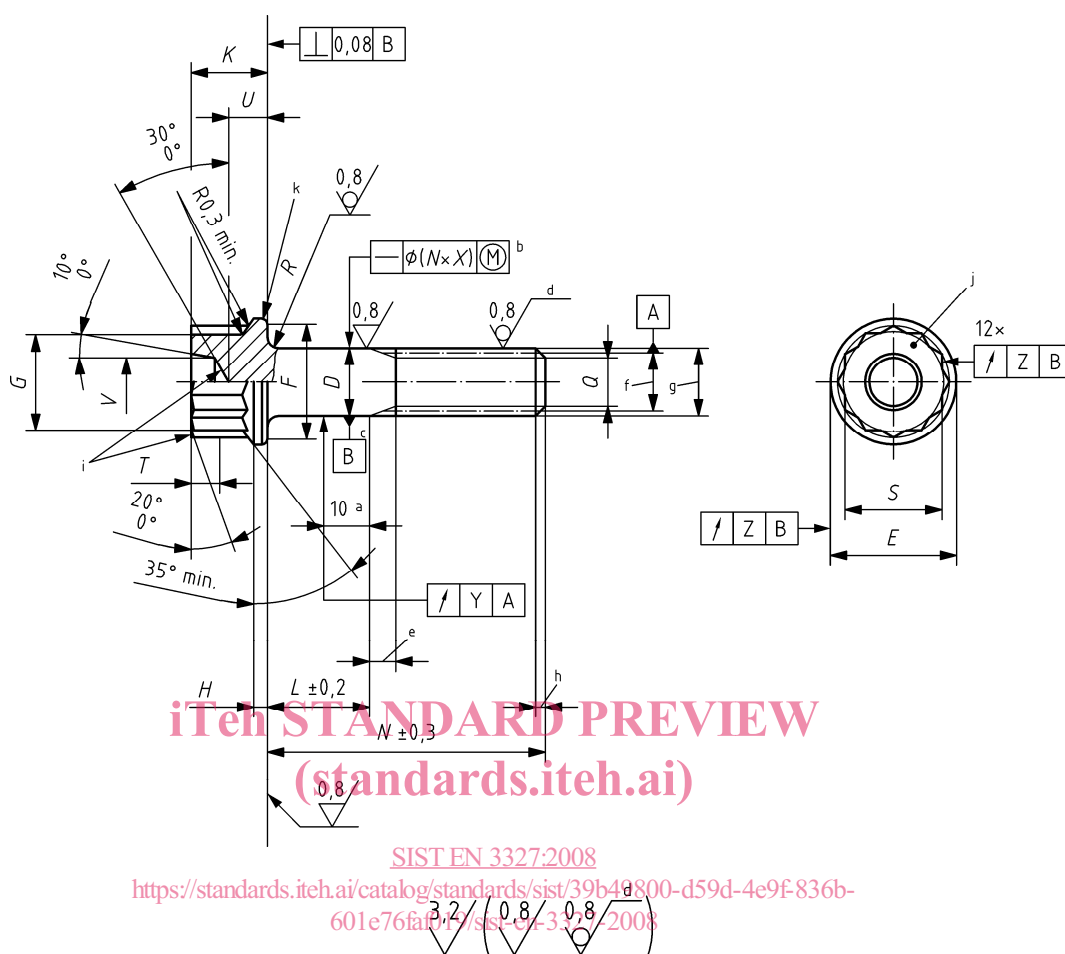
None.

3.4 Thread surface

See Figure 1.

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

Dimensions in millimetres



Key

Break sharp edges 0,1 mm to 0,4 mm

- a When the length of the shank is less than one time the nominal value of the shank diameter, D , the run-out is measured at a distance equal to half the actual shank length
- b Total straightness with reference to nominal length N
- c For bolts having a shank length less than one time the nominal value of the shank diameter, D , the pitch diameter axis shall be used as datum
- d Rolled
- e Thread run-out ISO 3353-1
- f Thread pitch diameter
- g Thread major diameter – max.: actual shank diameter minus 0,025 mm; min.: defined by 6 h tolerance
- h Lead thread ISO 3353-1
- i Shape in this area at manufacturer's option
- j Identity marking
- k Shape in this area at manufacturer's option

Figure 1 — Configuration

Table 1 — Dimensions

Dimensions in millimetres

Code	Designation ^a	$\varnothing D$	$\varnothing E$	$\varnothing F$	$\varnothing G$	H	K	$\varnothing Q$	R		S^b		T		U		$\varnothing V$		X	Y	Z
		f7	max.	min.	min.	min.	h15	$\pm 0,5$	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.			
050	MJ5 × 0,8–4H6H ^c	5	9,1	8,3	6,8	1,0	5,5	3,5	0,5	0,3	7	2	2,9	2,5	3,7	3,2	0,002	0,12	0,13		
060	MJ6 × 1–4H6H ^c	6	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	MJ7 × 1–4H6H ^c	7	12,1	11,3	8,8	1,4	6,5	5,2	0,7	0,5	9	2,6	3,7	3,3	5,4	4,9			0,18		
080	MJ8 × 1–4H6H ^c	8	13,6	12,8	9,8	1,6	7	6,2	0,7	0,5	10	2,8	4,1	3,7	5,7	5,2		0,15	0,20		
100	MJ10 × 1,25–4H6H ^c	10	16,7	15,7	11,8	2,0	8	7,9	0,8	0,6	12	3,1	5,1	4,7	7,2	6,7	0,001 5		0,25		
120	MJ12 × 1,25–4H6H ^c	12	19,9	18,8	13,7	2,4	9,2	9,9	0,9	0,6	14	3,5	6,0	5,6	8,5	8,0		0,18	0,30		

^a According to ISO 5855-1 and ISO 5855-2.

^b Bihexagonal configuration in conformity with ISO 4095 over length T min.

^c The tolerance on the thread major diameter shall be modified as indicated in Figure 1.

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Table 2 — Lengths and masses

Masses (8,195 kg/dm³): kg/1 000 pieces

Length code	$L \pm 0,2$ mm	Nominal diameter code											
		050		060		070		080		100		120	
		<i>N</i> mm	Mass kg	<i>N</i> mm	Mass kg	<i>N</i> mm	Mass kg	<i>N</i> mm	Mass kg	<i>N</i> mm	Mass kg	<i>N</i> mm	Mass kg
003	3	16,5	4,25	18,5	6,44	—	—	—	—	—	—	—	—
004	4	17,5	4,41	19,5	6,67	20,5	9,46	22	13,44	—	—	—	—
005	5	18,5	4,57	20,5	6,91	21,5	9,78	23	13,84	26,5	24,30	—	—
006	6	19,5	4,73	21,5	7,14	22,5	10,09	24	14,25	27,5	24,94	29,5	39,76
007	7	20,5	4,89	22,5	7,37	23,5	10,41	25	14,67	28,5	25,59	30,5	40,69
008	8	21,5	5,05	23,5	7,59	24,5	10,72	26	15,08	29,5	26,22	31,5	41,61
009	9	22,5	5,21	24,5	7,83	25,5	11,04	27	15,49	30,5	26,87	32,5	42,54
010	10	23,5	5,37	25,5	8,06	26,5	11,36	28	15,90	31,5	27,51	33,5	43,47
011	11	24,5	5,54	26,5	8,29	27,5	11,67	29	16,32	32,5	28,16	34,5	44,39
012	12	25,5	5,70	27,5	8,53	28,5	11,99	30	16,73	33,5	28,79	35,5	45,32
013	13	26,5	5,85	28,5	8,76	29,5	12,30	31	17,14	34,5	29,44	36,5	46,25
014	14	27,5	6,01	29,5	8,99	30,5	12,61	32	17,57	35,5	30,08	37,5	47,17
015	15	28,5	6,18	30,5	9,22	31,5	12,93	33	17,96	36,5	30,73	38,5	48,10
016	16	29,5	6,34	31,5	9,45	32,5	13,25	34	18,37	37,5	31,37	39,5	49,02
017	17	30,5	6,50	32,5	9,68	33,5	13,57	35	18,78	38,5	32,01	40,5	49,95
018	18	31,5	6,66	33,5	9,92	34,5	13,87	36	19,20	39,5	32,66	41,5	50,88
019	19	32,5	6,82	34,5	10,15	35,5	14,19	37	19,61	40,5	33,30	42,5	51,80
020	20	33,5	6,99	35,5	10,38	36,5	14,51	38	20,02	41,5	33,94	43,5	52,73
021	21	34,5	7,15	36,5	10,61	37,5	14,82	39	20,43	42,5	34,59	44,5	53,66
022	22	35,5	7,30	37,5	10,84	38,5	15,14	40	20,85	43,5	35,23	45,5	54,58
023	23	36,5	7,46	38,5	11,07	39,5	15,45	41	21,25	44,5	35,88	46,5	55,51
024	24	37,5	7,62	39,5	11,31	40,5	15,77	42	21,66	45,5	36,51	47,5	56,43
025	25	38,5	7,79	40,5	11,54	41,5	16,08	43	22,08	46,5	37,16	48,5	57,37
026	26	39,5	7,95	41,5	11,77	42,5	16,39	44	22,49	47,5	37,80	49,5	58,29
027	27	40,5	8,11	42,5	12,00	43,5	16,71	45	22,90	48,5	38,45	50,5	59,21
028	28	41,5	8,27	43,5	12,23	44,5	17,03	46	23,31	49,5	39,09	51,5	60,14