



SLOVENSKI STANDARD
SIST EN 3831:2005

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SIST EN 3831:2004

Aerospace series - Inserts, thickwall, self-locking, MJ threads, in heat resisting steel FE-PM3801 (17-4PH), MoS2 coated

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Luft- und Raumfahrt - Gewindeeinsätze, dickwandig, selbstsichernd, MJ-Gewinde, aus hochwarmfestem Stahl FE-PM3801 (17-4PH), MoS2-beschichtet

Série aérospatiale - Douilles filetées, a paroi renforcée, a freinage interne, a filetage MJ, en acier résistant a chaud FE-PM3801 (17-4PH), revetues MoS2

Ta slovenski standard je istoveten z: EN 3831:2004

ICS:

49.030.30 Matice Nuts

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3831

November 2004

ICS 49.030.30

Supersedes EN 3831:2003

English version

Aerospace series - Inserts, thickwall, self-locking, MJ threads, in heat resisting steel FE-PM3801 (17-4PH), MoS2 coated

Série aérospatiale - Douilles filetées, à paroi renforcée, à freinage interne, à filetage MJ, en acier résistant à chaud FE-PM3801 (17-4PH), revêtues MoS2

Luft- und Raumfahrt - Gewindeeinsätze, dickwandig, selbstsichernd, MJ-Gewinde, aus hochwarmfestem Stahl FE-PM3801 (17-4PH), MoS2-beschichtet

This European Standard was approved by CEN on 11 September 2003.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN 3831:2004) 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 May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

This document supersedes EN 3831:2003.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EN 3831:2004 (E)**1 Scope**

This standard specifies the characteristics of self-locking, thickwall inserts with MJ threads, in FE-PM3801, MoS₂ coated, for aerospace applications.

Maximum test temperature: 350 °C

For design and installation procedures see EN 4014 and EN 4015.

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 5855-1, *Aerospace – MJ threads – Part 1: General requirements*

ISO 5855-2, *Aerospace – MJ threads – Part 2: Limit dimensions for bolts and nuts*

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

EN 2491, *Aerospace series – Molybdenum disulphide dry lubricants – Coating methods*

EN 3899, *Aerospace series – Inserts, thickwall, self-locking, MJ threads, in heat resisting steel FE-PM3801 (17-4PH) – Technical specification*

EN 3906, *Aerospace series – Martensitic corrosion resisting steel FE-PM3801 – Air melted – Solution treated – Bar – $D \leq 50$ mm – For the manufacture of fasteners – $1\ 100\ \text{MPa} \leq R_m \leq 1\ 300\ \text{MPa}$ ¹⁾*

EN 4014, *Aerospace series – Inserts, thickwall, self-locking – Design standard*

EN 4015, *Aerospace series – Inserts, thickwall, self-locking – Installation and removal procedure*

TR 3198, *Aerospace series – Manufacturers' identification monograms and marks for EN aerospace products*²⁾

3 Required characteristics**3.1 Configuration – Dimensions – Tolerances – Masses**

See Figure 1 and Tables 1 and 2.

Dimensions and tolerances are in millimetres. They apply before MoS₂ coating.

3.2 Material

EN 3906

3.3 Surface treatment

EN 2491

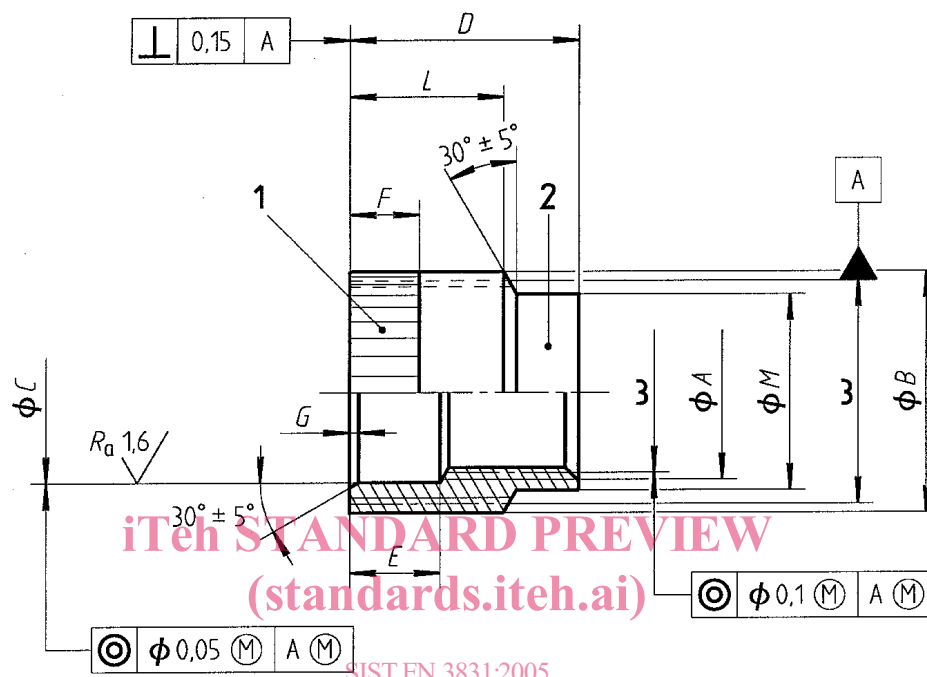
1) Published as AECMA Prestandard at the date of publication of this standard

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

4 Insert definition

$R_a 3,2$ $\left[R_a 1,6 \right]$ Values apply before MoS₂ coating.

Remove sharp edges 0,1 to 0,2.



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Key

- 1 knurl across thread to produce J number of serration
- 2 form out-of-round in this area to achieve the self-locking requirement (tooling marks permissible).
- 3 pitch diameter

Details of form not stated are left to the manufacturer's discretion.

Figure 1

4.1 Nominal size insert

See Table 1.

Table 1

Code	A Internal thread ^a		C +0,2 0	D ± 0,3	E ± 0,2	F ± 0,3	G max.	J	L min.	M ^c max.	Mass kg/1 000 parts ≈
	Designation	Designation ^b									
050-0	MJ5×0,8-4H6H	MJ8×1-4h6h	6	7,6	3	2,3	0,3	24	5,1	6,5	0,9
060-0	MJ6×1-4H5H	MJ9×1-4h6h	7	8,9	3,2	2,4		27	5,8	7,5	1,4
070-0	MJ7×1-4H5H	MJ10×1-4h6h	8	10,9	3,6	2,7		28	7,3	8,5	2
080-0	MJ8×1-4H5H	MJ11×1-4h6h	9	12,9	4	2,9		32	9	9,5	2,6
100-0	MJ10×1,25-4H5H	MJS13×1-4h6h	11	16,2	4,7	3,3		37	11,5	11,5	4,5

^a In accordance with ISO 5855-2

^b In accordance with ISO 5855-1

^c After deformation

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4.2 Repair size insert

See Table 2.

Table 2

Code	A Internal thread ^a	B External thread ^b	C	D	E	F	G	J	L	M ^c	Mass
	Designation	Designation	+0,2 0	±0,3	±0,2	±0,3	max.		min.	max.	kg/1 000 parts ≈
050-1	MJ5×0,8-4H6H	MJ9×1-4h6h	7	7,6	3,2	2,4	0,3	27	4,8	6,5	1,5
060-1	MJ6×1-4H5H	MJ10×1-4h6h	8	8,9	3,6	2,7		28	5,5	7,5	2
070-1	MJ7×1-4H5H	MJ11×1-4h6h	9	10,9	4	2,9		32	7	8,5	3
080-1	MJ8×1-4H5H	MJ12×1-4h6h	10	12,9	4,7	3,3		33	8,6	9,5	3,8
100-1	MJ10×1,25-4H5H	MJ14×1-4h6h	12	16,2	5,2	3,5		40	11,1	11,5	6,3

^a In accordance with ISO 5855-2
^b In accordance with ISO 5855-1
^c After deformation

5 Designation

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EXAMPLE

Description block | Identity block
 INSERT THICKWALL | EN3831-050-1

Number of this standard _____

Thread code (see Tables 1 and 2) _____

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

6 Marking

EN 2424, style G

Manufacturers' identification marks in accordance with the list for special identification marks in TR 3198

7 Technical specification

EN 3899