



National Standards Authority of Ireland

IRISH STANDARD

**I.S. EN 3899:2005**

ICS 49.030.30

**AEROSPACE SERIES - INSERTS,  
THICKWALL, SELF-LOCKING, MJ THREADS,  
IN HEAT RESISTING STEEL FE-PM3801  
(17-4PH) - TECHNICAL SPECIFICATION**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 3899**

November 2004

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Supersedes EN 3899:2003

English version

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

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

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

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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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## **Foreword**

This document (EN 3899:2004) 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 3899:2003.

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.

**EN 3899:2004 (E)****1 Scope**

This standard specifies the characteristics, qualification and acceptance requirements for self-locking thickwall inserts with MJ threads, in FE-PM3801, for aerospace applications.

It is applicable whenever referenced.

**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 2859-1, | <i>Sampling procedures for inspection by attributes – Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection</i>  |
| ISO 3452,   | <i>Non-destructive testing – Penetrant inspection – General principles</i>  |
| ISO 4288,   | <i>Geometrical Product Specifications (GPS) – Surface texture: Profile method – Rules and procedures for the assessment of surface texture</i>  |
| ISO 5855-2, | <i>Aerospace – MJ threads – Part 2: Limit dimensions for bolts and nuts</i>   |
| ISO 7481,   | <i>Aerospace – Nuts, self-locking, with maximum operating temperature less than or equal to 425 °C – Test methods</i>   |
| EN 2638,    | <i>Aerospace series – Aluminium alloy 2024-T3, extruded bar and section – <math>1,2 \leq (a \text{ or } D) \leq 150 \text{ mm}</math> with coarse peripheral grain control <sup>1)</sup></i>  |
| EN 3906,    | <i>Aerospace series – Martensitic corrosion resisting steel FE-PM3801 – Air melted – Solution treated – Bar – <math>D \leq 50 \text{ mm}</math> – For the manufacture of fasteners – <math>1\ 100 \text{ MPa} \leq R_m \leq 1\ 300 \text{ MPa}</math> <sup>1)</sup></i> |
| EN 4014,    | <i>Aerospace series – Inserts, thickwall, self-locking – Design standard</i>  |
| EN 4015,    | <i>Aerospace series – Inserts, thickwall, self-locking – Installation and removal procedure</i>   |
| EN 9133,    | <i>Aerospace series – Quality management systems – Qualification procedure for aerospace standard parts <sup>1)</sup></i>   |
- ASTM E112-96, *Standard Test Methods for Determining Average Grain Size* <sup>2)</sup>

**3 Terms and definitions**

For the purposes of this standard, the following terms and definitions apply.

**3.1****batch**

quantity of finished parts, of the same type and same diameter, produced from the same material obtained from the same melt, manufactured in the course of the same production cycle, following the same manufacturing route and having undergone all the relevant heat treatments and surface treatments

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2) Published by: American Society for Testing and Materials (ASTM), 1916, Race street, Philadelphia, PA 19103, USA

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