

# Installation and removal requirements for 8° 30' adaptors, threaded, with lockring

The European Standard EN 2608:2005 has the status of a  
British Standard

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# National foreword

This British Standard is the official English language version of EN 2608:2005.

The UK participation in its preparation was entrusted to Technical Committee ACE/69, Aerospace hydraulic systems, fluids and components, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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## Summary of pages

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English Version

**Aerospace series - Installation and removal requirements for 8°  
30' adaptors, threaded, with lockring**

Série aérospatiale - Spécification de montage et de  
démontage des raccords à implanter à 8° 30' à bague de  
sécurité

Luft- und Raumfahrt - Ein- und Ausbaubedingungen für  
gerade Einschraubverschraubungen 8° 30' mit  
Sicherungsring

This European Standard was approved by CEN on 28 October 2005.

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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.

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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## **Foreword**

This European Standard (EN 2608:2005) 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 June 2006, and conflicting national standards shall be withdrawn at the latest by June 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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## 1 Scope

This standard specifies the installation and removal requirements for adaptors, threaded, with locking for pipe couplings 8°30' according to EN 2603.

This standard establishes an accurate procedure of adaptor installation, removal and reinstallation to ensure the repeatability of the installation operation and to ensure the effective compliance to sealing and locking requirements.

The adaptor shown on all figures of this standard is given as an example for the 8°30' interface according to EN 2604.

This procedure is used for adaptors 8°30', for nominal pressure up to 28 000 kPa to install the adapters according to EN 3248, EN 3270 and EN 3566.

## 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 5855-3, *Aerospace — MJ threads — Part 3: Limit dimensions for fluid systems*

EN 2435-01, *Aerospace series — Paints and varnishes — Corrosion resistant chromated two component cold curing primer — Part 01: Minimum requirements*

EN 2602, *Aerospace series — Ports for adaptors, threaded, with locking — Geometric configuration*

EN 2603, *Aerospace series — Port ends for adaptors, threaded, with locking — Geometric configuration*

EN 2604, *Aerospace series — 8°30' interface for adaptors, threaded, with locking — Geometric configuration*

EN 2645, *Aerospace series — Lockrings for adaptors, threaded, with locking — Dimensions*

EN 3248, *Aerospace series — Pipe coupling 8°30' in titanium alloy — Adaptors, reduced pipe end, with locking*

EN 3270, *Aerospace series — Pipe coupling 8°30' in titanium alloy — Blanking plugs with locking*

EN 3566, *Aerospace series — Pipe coupling 8°30' in titanium alloy — Adaptors with locking*

EN 3663, *Aerospace series — Pipe coupling — O-rings in rubber NBR, 75 IRHD — Temperature range: – 55 °C to +135 °C*

MIL-H-5606, *Hydraulic fluid, petroleum base; aircraft, missile and ordnance*<sup>1)</sup>

MIL-H-83282, *Hydraulic fluid, fire resistant, synthetic hydrocarbon base, metric, NATO number H-537*<sup>1)</sup>

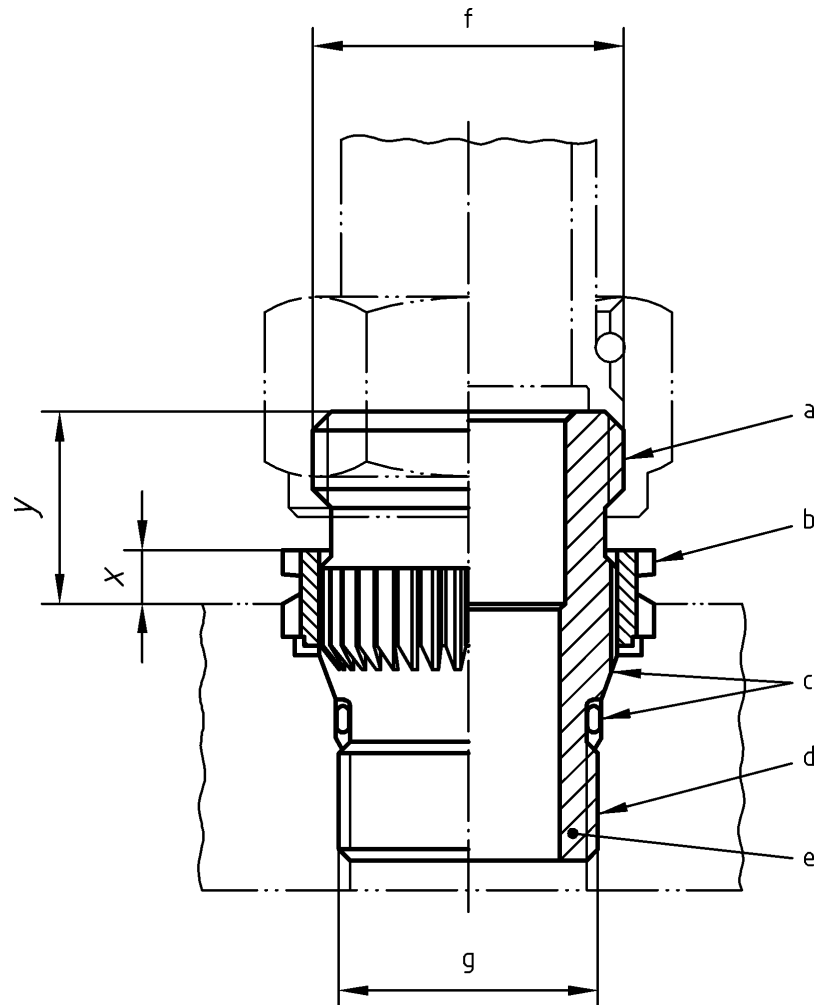
MIL-H-87257, *Hydraulic fluid, fire resistant, low temperature, synthetic hydrocarbon base, aircraft and missile*<sup>1)</sup>

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1) Published by: Department of Defence (DOD), the Pentagon, Washington, D.C. 20301.

### 3 Installation instructions

#### 3.1 Engineering information



- a The adaptor according to EN 3566 is used in the 8°30' coupling system with an interface according to EN 2604.
- b The locking according to EN 2645 prevents the adaptor from rotating in the port and also avoids port damage at tubing installation due to torquing.
- c Seal is metal to metal and O-ring according to EN 3663.  
NOTE This seal is only compatible with hydraulic fluids such as MIL-H-5606, MIL-H-83282 and MIL-H-87257.
- d Tapped hole (boss port side) for the 8°30' adaptor installation according to EN 2602.
- e Port side interface of the adaptor according to EN 2603.
- f Thread A
- g Thread B

**Figure 1**

Comparison of numbers for Rosan and AECMA parts see Annex A.

Table 1 — General information

Dimensions in millimetres

| 8°30' coupling Code <sup>a</sup>                                                       | Adaptor Part No. EN | Port dimension code | Thread A <sup>b</sup><br>4g6g | Thread B <sup>b</sup><br>4h6h | O-ring Part No. EN | x<br>max. | y<br>± 0,50 |
|----------------------------------------------------------------------------------------|---------------------|---------------------|-------------------------------|-------------------------------|--------------------|-----------|-------------|
| 05                                                                                     | 3566-0605           | 077                 | MJ10 × 1                      | MJ6 × 1                       | 3663A0045          | 3,2       | 10,80       |
| 06                                                                                     | 3566-0806           | 098                 | MJ12 × 1,25                   | MJ8 × 1                       | 3663A0060          | 3,65      | 12,75       |
| 08                                                                                     | 3566-1008           | 125                 | MJ14 × 1,5                    | MJ10 × 1                      | 3663A0080          | 4,10      | 15,00       |
| 10                                                                                     | 3566-1210           | 136                 | MJ16 × 1,5                    | MJ12 × 1,25                   | 3663A0095          | 4,10      | 15,00       |
| 12                                                                                     | 3566-1412           | 153                 | MJ18 × 1,5                    | MJ14 × 1,5                    | 3663A0112          | 4,10      | 15,00       |
| 14                                                                                     | 3566-1614           | 170                 | MJ20 × 1,5                    | MJ16 × 1,5                    | 3663A0132          | 4,10      | 15,20       |
| 16                                                                                     | 3566-1816           | 192                 | MJ22 × 1,5                    | MJ18 × 1,5                    | 3663A0150          | 4,10      | 15,20       |
| 18                                                                                     | 3566-2018           | 214                 | MJ24 × 1,5                    | MJ20 × 1,5                    | 3663A0170          | 4,10      | 15,00       |
| 20                                                                                     | 3566-2220           | 231                 | MJ27 × 1,5                    | MJ22 × 1,5                    | 3663A0190          | 4,10      | 15,60       |
| 22                                                                                     | 3566-2422           | 253                 | MJ30 × 1,5                    | MJ24 × 1,5                    | 3663A0212          | 4,10      | 15,60       |
| 25                                                                                     | 3566-2725           | 295                 | MJ33 × 1,5                    | MJ27 × 1,5                    | 3663A0236          | 4,10      | 16,00       |
| 28                                                                                     | 3566-3028           | 320                 | MJ36 × 1,5                    | MJ30 × 1,5                    | 3663A0265          | 4,10      | 16,00       |
| 32                                                                                     | 3566-3332           | 350                 | MJ39 × 1,5                    | MJ33 × 1,5                    | 3663A0300          | 4,10      | 16,00       |
| <sup>a</sup> Corresponds to the pipe nominal outside diameter.                         |                     |                     |                               |                               |                    |           |             |
| <sup>b</sup> According to ISO 5855-3, except MJ6 × 1. MJ6 × 1 according to ISO 5855-1. |                     |                     |                               |                               |                    |           |             |

### 3.2 Port preparation

The manufacturing sequence of port preparation is for information only.

Qualification of the assembly is required for each manufacturing sequence and type of tool for a given port material installation method and nominal pressure.

The hole shall conform to EN 2602, using the applicable tools for

- tap drilling
- port machining
- serration broaching
- thread cutting

NOTE The design office may specify a hole without serration pre-broaching, when low resistance material is used.