

BS EN 4686:2014



BSI Standards Publication

Aerospace series — Pipe coupling 8°30' in titanium alloy — Equipped blind ferrules

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee ACE/69, Aerospace hydraulic systems, fluids and components.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Published by BSI Standards Limited 2014

ISBN 978 0 580 67366 5

ICS 49.080

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2014.

Amendments/corrigenda issued since publication

Date	Text affected
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ICS 49.080

English Version

Aerospace series - Pipe coupling 8°30' in titanium alloy - Equipped blind ferrules

Série aérospatiale - Système de raccordement 8°30' en
alliage de titane - Obturateurs équipés

Luft- und Raumfahrt - Rohrverschraubung 8°30' aus
Titanlegierung - Ausgerüstete Blindstutzen

This European Standard was approved by CEN on 4 January 2014.

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Foreword

This document (EN 4686:2014) 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of an identical text or by endorsement, at the latest by April 2015, and conflicting national standards shall be withdrawn at the latest by April 2015.

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1 Scope

This European Standard specifies the characteristics of equipped blind ferrules for pipe couplings 8°30', in titanium alloy, for aerospace applications.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

DIN 471, *Retaining rings for shafts — Normal type and heavy type* ¹⁾

EN 3269, *Aerospace series — Pipe coupling 8°30' in titanium alloy — Ferrules, blind, with dynamic beam seal end*

EN 3275, *Aerospace series — Pipe coupling 8°30' up to 28 000 kPa — Dynamic beam seal — Metric series — Technical specification*

EN 3311, *Aerospace series — Titanium alloy TI-P64001 (Ti-6Al-4V) — Annealed — Bar for machining — $D < 110$ mm*

EN 3314, *Aerospace series — Titanium alloy TI-P64001 — Solution treated and aged — Bar for machining — $D \leq 75$ mm* ²⁾

EN 4031, *Aerospace series — Pipe coupling 8°30' in titanium alloy — Nuts for welded ferrule*

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

MIL-PRF-24635, *Performance specification — Coating systems, weather resistant, exterior use* ³⁾

FED-STD-595, *Federal Standard: colors used in government procurement (Color FS 11136)* ³⁾

3 Required characteristics

3.1 Configuration – Dimensions – Mass

According to Figure 1 and Table 1. Dimensions applied before lubricating.

See EN 3269 and EN 4031 for missing dimensions.

3.2 Surface roughness

According to Figure 1.

3.3 Materials

According to EN 3311 or EN 3314 for nuts and blind ferrules.

Stainless steel for external retaining rings according to DIN 471.

¹⁾ To be obtained from: Beuth Verlag, Burggrafenstr. 6, 10787 Berlin (www.beuth.de).

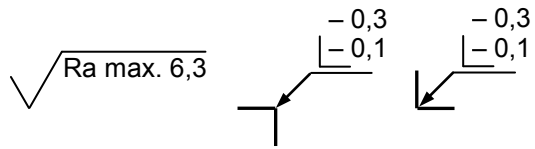
²⁾ Published as ASD-STAN Prestandard at the date of publication of this standard (www.asd-stan.org).

³⁾ Published by: DoD National (US) Mil. Department of Defense <http://www.defenselink.mil/>

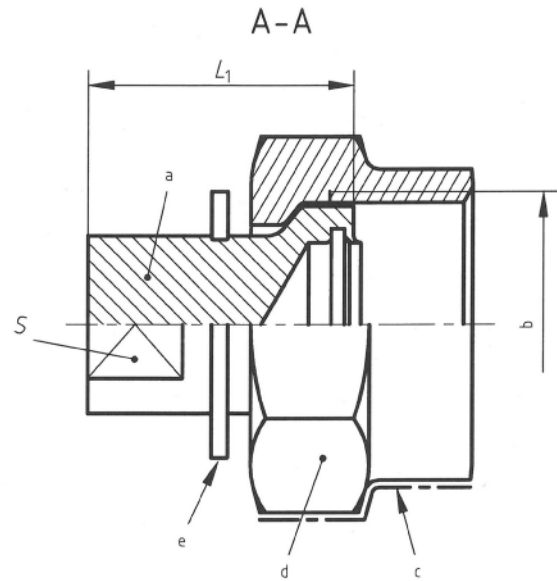
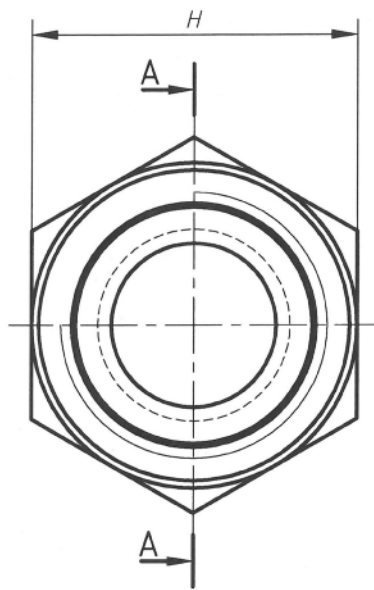
3.4 Surface treatment

Lubrication: PTFE coating on the 110° Nut contact area, see EN 4031.

Optional, red coating FED-STD-595/11136 in accordance with MIL-PRF-24635 (see Figure 1 and Table 2).



Dimensions in millimetres



Key

- a Blind ferrule according to EN 3269
- b Diameter thread
- c Red coating zone
- d Nut coating zone
- e Axial mounting external type retaining ring

Figure 1

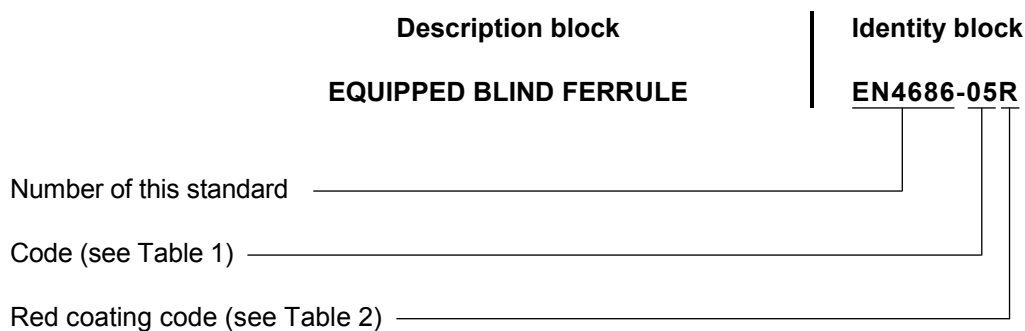
Table 1

Code^a	Thread^b 4H5H	L_1 $\pm 0,3$	S h13	H h13
05	MJ10×1	18	5	14
06	MJ12×1,25			16
08	MJ14×1,5	18,5	6	18
10	MJ16×1,5		8	21
12	MJ18×1,5		10	22
14	MJ20×1,5		12	24
16	MJ22×1,5			27
18	MJ24×1,5			30
20	MJ27×1,5	21	14	32
22	MJ30×1,5			36
25	MJ33×1,5			41
28	MJ36×1,5			46
32	MJ39×1,5	22,5	17	50

^a Corresponds to the pipe nominal outside diameter.
^b According to ISO 5855-3.

4 Designation

EXAMPLE



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

Table 2

Option	Code
Red coating	R
No red coating	No code

5 Marking

According to EN 3269 and EN 4031.

Optional code R, for information: EN 4031 marking will be hidden by red painting.

WARNING — Items marked with red colour reference are NON-FLIGHTWORTHY COMPONENTS and must be REMOVED BEFORE FLIGHT.

6 Technical specification

According to EN 3275.

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