



**SLOVENSKI STANDARD
SIST EN 4556:2004**

01-maj-2004

Aerospace series - Pipe coupling 37°, in heat resisting steel - Cap assemblies- Inch series

Aerospace series - Pipe coupling 37°, in heat resisting steel - Cap assemblies- Inch series

Luft- und Raumfahrt - Rohrverschraubung 37° aus hochwarmfestem Stahl - Verschlusseinheiten - Inch-Reihe

Série aérospatiale - Systeme de raccordement 37°, en acier résistant a chaud - Ensembles d'obturation - Série inch

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SIST EN 4556:2004
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Ta slovenski standard je istoveten z: EN 4556:2003

ICS:

49.080 Štejni sistemi in deli za letalske sisteme in komponente Aerospace fluid systems and components

SIST EN 4556:2004 en

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EUROPEAN STANDARD

EN 4556

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2003

ICS 49.080

English version

Aerospace series - Pipe coupling 37°, in heat resisting steel - Cap assemblies- Inch series

Série aérospatiale - Système de raccordement 37°, en
acier résistant à chaud - Ensembles d'obturation - Série
inch

This European Standard was approved by CEN on 14 September 2002.

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 Management Centre 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 Management Centre has the same status as the official versions.

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document EN 4556:2003 has been prepared by the European Association of Aerospace Manufacturers (AECMA).

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 August 2003, and conflicting national standards shall be withdrawn at the latest by August 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

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1 Scope

This standard specifies the characteristics of cap assemblies for inch series pipe couplings, 37°, in heat resisting steel, for aerospace applications.

[SIST EN 4556:2004](#)

Mateable with EN 4552, EN 4553 or EN 4554 <https://standards.iteh.ai/catalog/standards/sist/9a6276d3-d1c0-4c31-b9b0-d5aafb2acc8/sist-en-4556-2004>

Nominal pressure : Class D in accordance with ISO 6771

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

ISO 6771 *Aerospace - Fluid systems and components - Pressure and temperature classifications.*

EN 2424 *Aerospace series - Marking of aerospace products.*

EN 2491 *Aerospace series - Molybdenum disulphide dry lubricants - Coating methods.*

EN 2786 *Aerospace series - Electrolytic silver plating of fasteners ¹⁾.*

EN 3468 *Aerospace series - Steel FE-PA13 - Softened - $500 \leq R_m \leq 700$ MPa - Forgings - $D_e \leq 100$ mm ¹⁾.*

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

EN 4556:2003 (E)

- EN 3487 *Aerospace series - Steel FE-PA13 - Softened - $500 \leq R_m \leq 700$ MPa - Bars for machining - $D_e \leq 100$ mm¹⁾.*
- EN 4550-4 *Aerospace series - Pipe couplings 37° - Design configuration - Inch series - Part 4 : Female sealing ends.*
- EN 4551 *Aerospace series - Pipe couplings 37°, in heat resisting steel - Swivel nuts - Inch series.*
- EN 4552 *Aerospace series - Pipe couplings 37°, spherical, in heat resisting steel - Straight nipples, welded end - Inch series.*
- EN 4553 *Aerospace series - Pipe couplings 37°, spherical, in heat resisting steel - Elbow 90° nipples, welded end - Inch series.*
- EN 4554 *Aerospace series - Pipe couplings 37°, spherical, in heat resisting steel - Straight unions, threaded - Inch series.*
- EN 4560 *Aerospace series - Pipe couplings 37°, spherical, up to 21 000 kPa - Inch series - Technical specification.*

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

See Figures 1 and 2 and Tables 1 to 4. Dimensions and tolerances are in millimetres.

Table 1

Code	Locking wire hole option
N	without locking wire hole
Y	with 2 locking wire holes

3.2 Materials

Nut: according to EN 4551.

Cap: according to EN 3468 with minimum hardness HB > 140 or EN 3487 with minimum hardness HB > 140.

3.3 Surface treatment

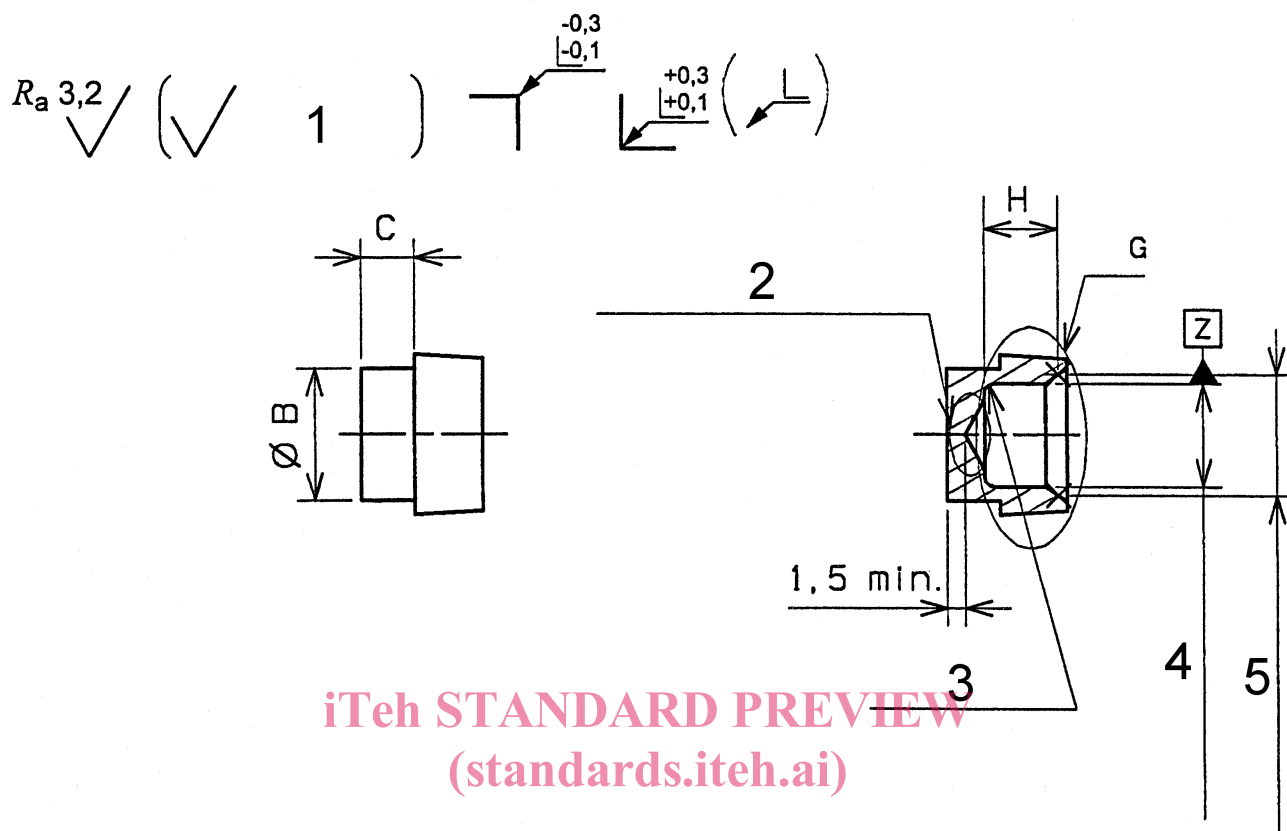
Cap : None

Nut : See Table 2.

Table 2

Code	Surface treatment	Specification
A	None	-
B	Molybdenum disulphide coating	EN 2491
C	Silver plating	EN 2786

3.4 Cap



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Key

- 1 See EN 4550-4
- 2 Optional shape
- 3 R 1 to 2
- 4 ($\varnothing A$ per EN 4550-4)
- 5 ($\varnothing E$ per EN 4550-4)

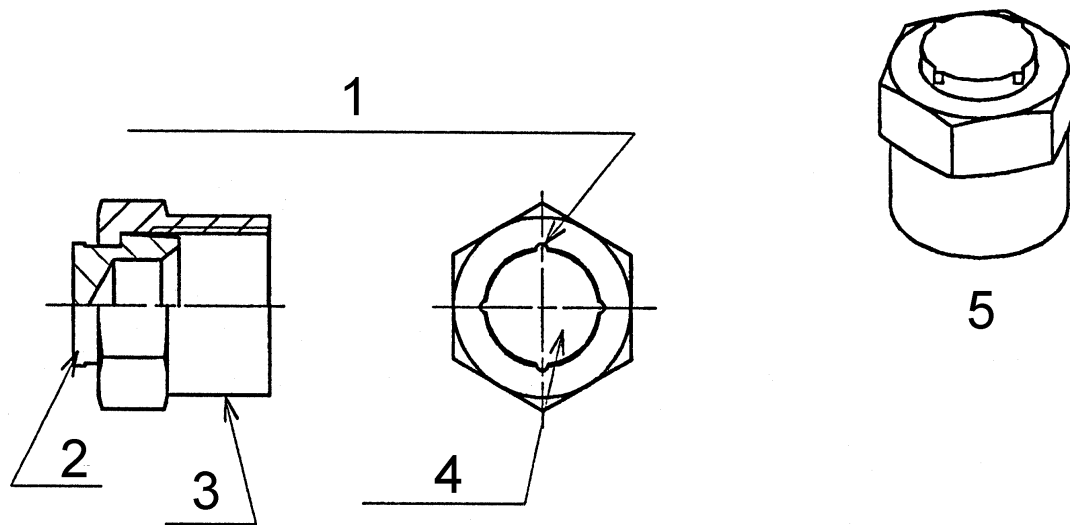
Figure 1

Table 3

Dimensional code ^a	Nominal diameter	B	C $\pm 0,25$	G	H $\pm 1,0$
03	4,763	5,87 5,94	5,80	EN4550-4-03	8
04	6,350	7,47 7,54		EN4550-4-04	8,3
05	7,925	9,22 9,29		EN4550-4-05	
06	9,525	10,90 10,97		EN4550-4-06	8,7
08	12,700	14,20 14,27		EN4550-4-08	9,7
10	15,875	17,45 17,52		EN4550-4-10	10,0
12	19,050	20,91 20,98		EN4550-4-12	10,2
16	25,400	27,39 27,45		EN4550-4-16	10,6

^a This code corresponds to the nominal diameter given in 16 th of inches within two digits.

4 Cap assembly



Key

- 1 Stake 4 places minimum equally spaced (see notes)
 2 Cap
 3 Nut
 4 Marking
 5 3 D view

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NOTE 1 Do not support cap on seat during staking or marking.

NOTE 2 Cap shall be free from defects as a result of staking or marking

NOTE 3 Nut shall spin freely on the cap after staking or marking

NOTE 4 Minimum push out force of the cap: 45 N

Figure 2

Table 4

Without surface treatment on nut (code A)

Dimensional code ^a	Nominal diameter	Thread ^b	Nut		Mass ≈ quoted in kg/1000 parts
			When locking wire hole option code is "N"	When locking wire hole option code is "Y"	
03	4,763	.375 0-24UNJF-3B	EN4551-03AN	EN4551-03AY	12
04	6,350	.437 5-20UNJF-3B	EN4551-04AN	EN4551-04AY	15
05	7,924	.500 0-20UNJF-3B	EN4551-05AN	EN4551-05AY	19
06	9,525	.562 5-18UNJF-3B	EN4551-06AN	EN4551-06AY	23
08	12,700	.750 0-16UNJF-3B	EN4551-08AN	EN4551-08AY	40
10	15,875	.875 0-14UNJF-3B	EN4551-10AN	EN4551-10AY	50
12	19,050	1.062 5-12UNJ-3B	EN4551-12AN	EN4551-12AY	85
16	25,400	1.312 5-12UNJ-3B	EN4551-16AN	EN4551-16AY	115

^a This code corresponds to the nominal diameter given in 16th of inches within two digits^b Quoted in inches in accordance with ISO 3161