

BS EN 4550-1:2014



BSI Standards Publication

**Aerospace series — Pipe
coupling, 37° — Design
configuration — Inch series**
Part 1: Male sealing ends, spherical

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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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Date	Text affected
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EUROPEAN STANDARD

EN 4550-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2014

ICS 49.080

Supersedes EN 4550-1:2003

English Version

**Aerospace series - Pipe coupling, 37° - Design configuration -
Inch series - Part 1: Male sealing ends, spherical**

Série aérospatiale - Système de raccordement 37° -
Configuration géométrique - Série inch - Partie 1: Extrémité
d'étanchéité mâles, sphériques

Luft- und Raumfahrt - Rohrverschraubungen 37° -
Konstruktionsblatt - Inch-Reihe - Teil 1:
Steckdichtungsenden mit Kugelbuchsen

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 4550-1:2014) 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of an identical text or by endorsement, at the latest by June 2015, and conflicting national standards shall be withdrawn at the latest by June 2015.

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1 Scope

This European Standard defines the dimensions and tolerances for the male sealing end of inch series pipe couplings, 37°, spherical, for aerospace applications.

Matched fluid system component shall have a female sealing end in accordance with EN 4550-4.

2 Normative references

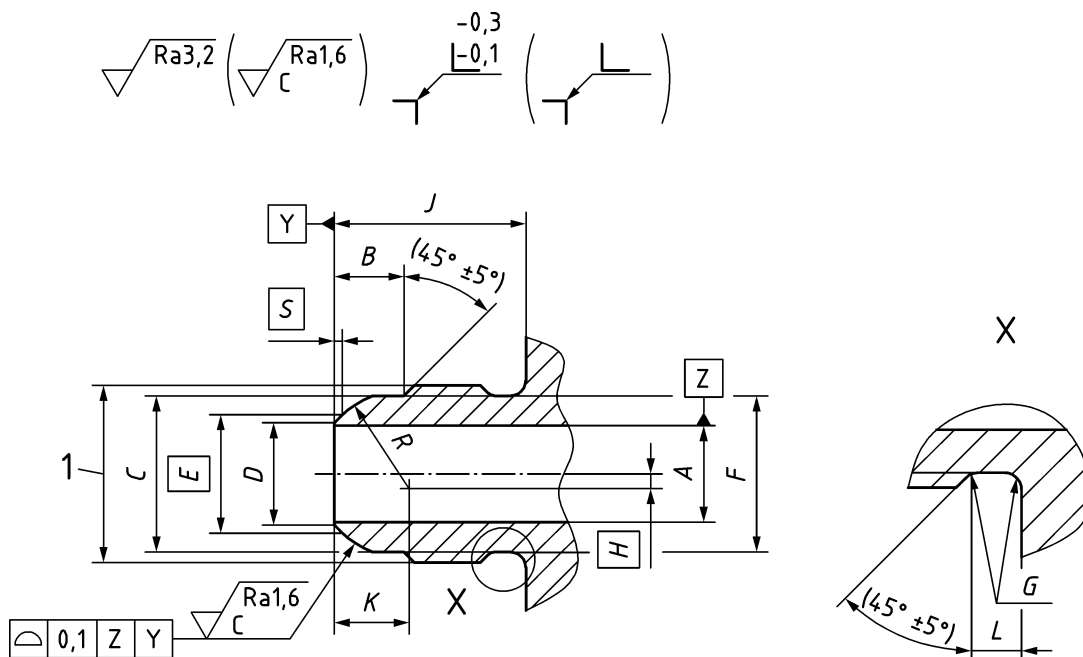
The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 4550-4, *Aerospace series — Pipe coupling, 37° — Design configuration — Inch series — Part 4: Female sealing ends*

ISO 3161, *Aerospace — UNJ threads — General requirements and limit dimensions*

3 Dimensions – Tolerances

See Figure 1 and Table 1. Dimensions and tolerances are in millimetres.



Key

1 Thread

NOTE All outer surfaces shall be concentric with a tolerance of diameter 0,1 mm relative to the inner diameter *A*.

Figure 1

Table 1

Dimensional code ^a	Nominal diameter	Thread ^b	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>R</i>	<i>S</i>						
				+ 0,35 0	± 0,10	± 0,10		0 - 0,1									± 0,50	± 0,10	± 0,25	± 0,13	
03	4,763	.375 0-24UNJF-3A	2,65 2,90	4,4	7,00	3,30	4,53	7,90	0,5 1,3	4,06	12,20	5,50	1,80	7,90	0,74						
04	6,350	.437 5-20UNJF-3A	4,25 4,50	4,8	9,00	4,80	6,25	9,25								3,20	14,00	5,55	2,00	7,90	0,80
05	7,924	.500 0-20UNJF-3A	5,80 6,10		10,50	6,50	7,77	10,80													
06	9,525	.562 5-18UNJF-3A	7,35 7,70	4,9	11,90	8,10	9,61	12,20								1,50	5,65	2,30	7,90	0,87	
08	12,700	.750 0-16UNJF-3A	9,75 10,10	6,3	16,50	10,80	12,66	16,75	0,8 1,8	3,30	16,50	8,35	2,55	12,05	1,10						
10	15,875	.875 0-14UNJF-3A	12,15 12,50	6,6	19,30	13,70	15,50	19,65								1,88	19,00	8,30	3,05	12,05	1,05
12	19,050	1.062 5-12UNJ-3A	15,30 15,70	7,8	23,60	16,90	19,34	24,00													
16	25,400	1.312 5-12UNJ-3A	21,20 21,70		30,00	23,25	25,64	30,35								0,00	22,90	11,10	3,30	16,05	1,42

^a This two digit quantitative code corresponds to the tube nominal diameter as the number of 1/16 inch increments it contains i.e. divided by 1/16 (.0625) inch.

^b Quoted in inches in accordance with ISO 3161.

4 Designation

EXAMPLE

Identity block

EN4550-1-08

Number of this standard _____

Dimensional code (see Table 1) _____

Annex A (informative) Standard evolution form

MODIFICATION	REASON AND VALIDATION
Figure 1 <u>Before:</u> dimension L (groove width) was represented up to top of thread. <u>After:</u> dimension L (groove width) is represented up to the bottom of thread.	Wrong representation of dimension L (groove width). Accordance with standard DT45-02.
Figure 1 <u>Before:</u> Dimension R was indicated as an absolute dimension (boxed dimension). <u>After:</u> Dimension R is indicated as a dimension with tolerance and tolerance $\pm 0,13$ is added in Table 1.	Incompatibility with another absolute dimension. Accordance with standard DT45-02.
Figure 1 <u>Before:</u> Dimension K was indicated as an absolute dimension (boxed dimension). <u>After:</u> Dimension K is indicated as a dimension with tolerance and tolerance $\pm 0,10$ is added in Table 1.	Incompatibility with another absolute dimension. Accordance with standard DT45-02.

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BSI Group Headquarters

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