SLOVENSKI STANDARD
SIST EN 4557:2004

01-maj-2004

Aerospace series - Pipe coupling 37°, spherical, in heat resisting steel - Tees nipples, welded end - Inch series

Aerospace series - Pipe coupling 37°, spherical, in heat resisting steel - Tees nipples, welded end - Inch series

Luft- und Raumfahrt - Rohrverschraubung 37° mit Kugelbuchse, aus hochwarmfestem Stahl - T-Verschraubungen, zum Anschweißen - Inch-Reihe

Série aérospatiale - Systeme de raccordement sphérique, 37°, en acier résistant a chaud - Mamelons en Té a souder - Série inch

Ta slovenski standard je istoveten z: **EN 4557:2003**

ICS:

49.080	Letalski in vesoljski hidravliļ ni sistemi in deli	Aerospace fluid systems and components

SIST EN 4557:2004 **en**

EUROPEAN STANDARD

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EN 4557

February 2003

ICS 49.080

English version

Aerospace series - Pipe coupling 37°, spherical, in heat resisting steel - Tees nipples, welded end - Inch series

Série aérospatiale - Système de raccordement sphérique, 37°, en acier résistant à chaud - Mamelons en Té à souder - Série inch

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

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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 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.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Contents

Foreword

This document EN 4557:2003 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.

1 Scope

This standard specifies the characteristics of welded tees with nipple for inch series pipe couplings, 37°, spherical, in heat resisting steel, for aerospace applications.

Nominal pressure: Class D per 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 3161 *Aerospace - UNJ threads - General requirements and limit dimensions.*

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

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

EN 3363 *Aerospace series - Steel FE-CM38 - Solution treated - $R_m \geq 485$ MPa - Sand or investment casting*[1)].

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

EN 3487 *Aerospace series - Steel FE-PA13 - Softened - $500 \leq R_m \leq 700$ MPa - Bars for machining - $D_e \leq 100$ mm* [1)].

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

EN 4549 *Aerospace series - Pipe coupling in heat resisting steel or in heat resisting nickel alloy - Coupling end, welded - Design configuration - Inch series.*

EN 4550-1 *Aerospace series - Pipe couplings, 37°, spherical - Design configuration - Inch series - Part 1 : Male sealing ends.*

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

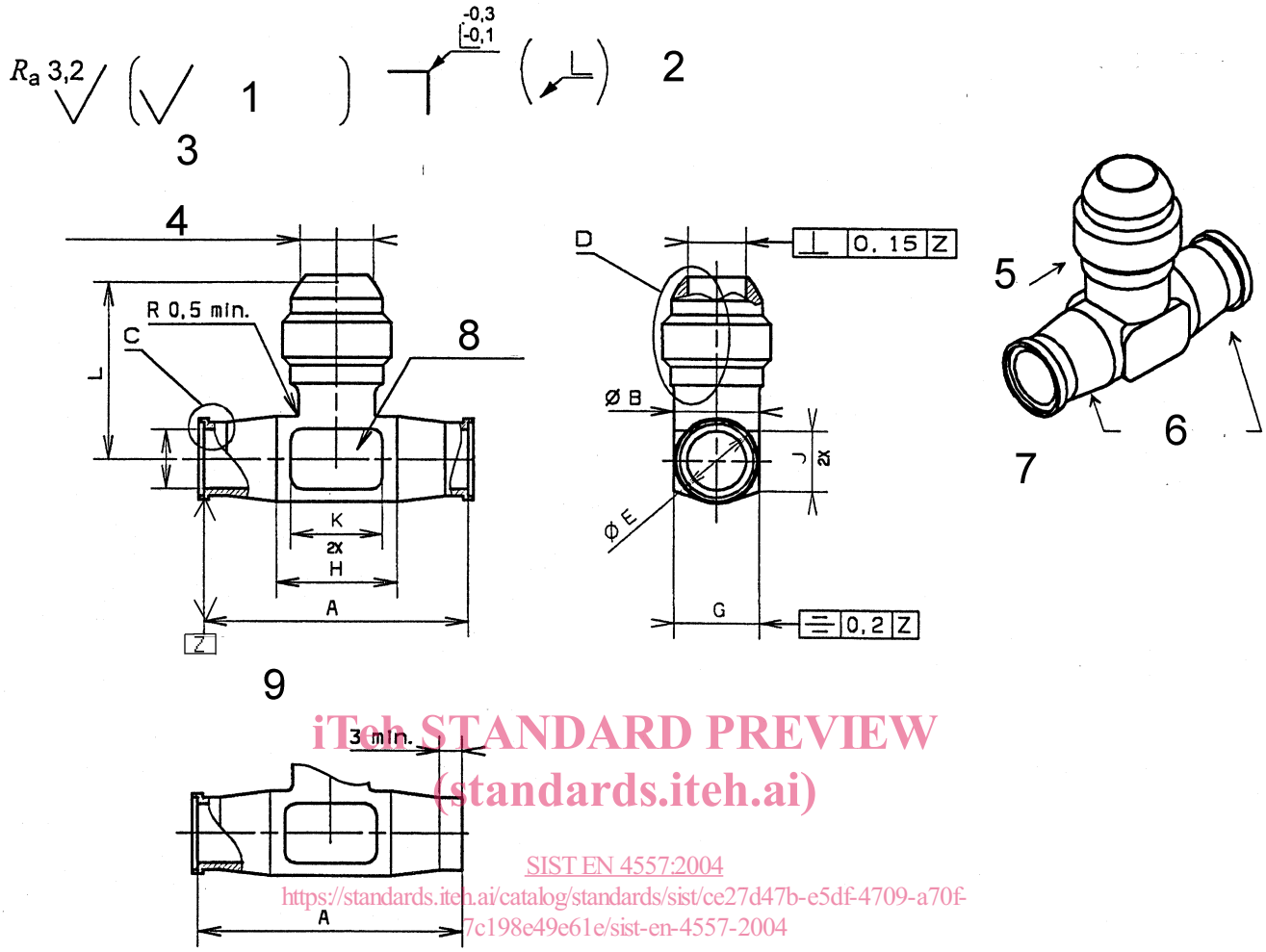
See Figures 1 to 3 and Tables 1 to 3. Dimensions and tolerances are in millimetres.

Table 1

Code	Weld end option
1	Weld end on one side
2	Weld end on both sides

3.2 Materials

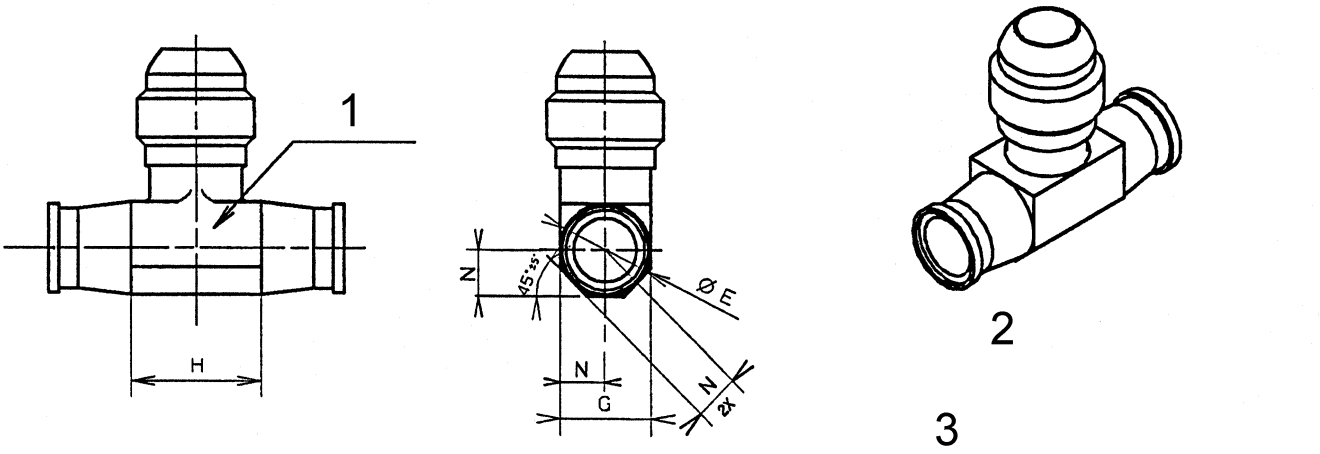
EN 3363 with minimum hardness HB > 140 or EN 3368 with minimum hardness HB > 140 or EN 3487 with minimum hardness HB > 140



Key

1 See EN 4550-1
2 Thread's surface will be achieved by normal methods of manufacture
3 Welding end option code 2
4 (∅ E per EN 4550-1)
5 Leg side
6 Run sides
7 3 D view
8 Marking
9 Welding end option code 1

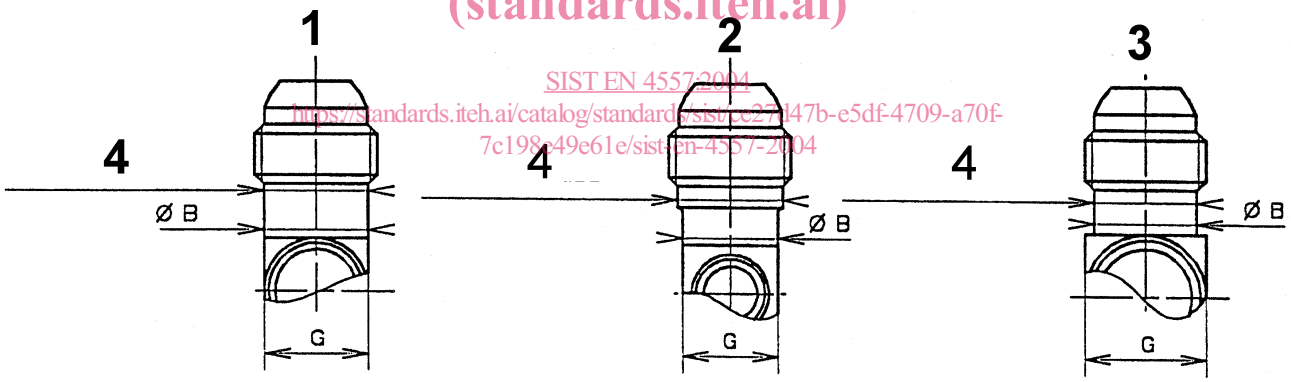
Figure 1 – Shape for moulding or forging parts



Key
1 Marking
2 3 D view
3 N théo = G/2

NOTE 1 Dimensions and tolerances given in Figure 1 are applicable to whole machining parts.
NOTE 2 Weld end option code 1 couplings may be whole machining with the dimensions and tolerances given in Figures 1 and 2.

Figure 2 – Shape for whole machining parts (alternate method of manufacture)



Key
1 Style 1
2 Style 2
3 Style 3
4 (∅ F per EN 4550-1)

Figure 3 – Configurations of diameter B

Table 2

Dimensional code [a]	Nominal diameter		Wall thickness of tube	C [b]	Dimensional code [a]	Nominal diameter		Wall thickness of tube	C [b]
	Weld sides	Fitting side				Weld sides	Fitting side		
A0403	6,350	4,763	0,711	EN4549A004	A1006	15,875	9,525	0,711	EN4549A010
B0403			0,889	EN4549B004	B1006			0,889	EN4549B010
A0404		6,350	0,711	EN4549A004	A1008		12,700	0,711	EN4549A010
B0404			0,889	EN4549B004	B1008			0,889	EN4549B010
A0406		9,525	0,711	EN4549A004	A1010		15,875	0,711	EN4549A010
B0406			0,889	EN4549B004	B1010			0,889	EN4549B010
A0504	7,925	6,350	0,711	EN4549A005	A1012		19,050	0,711	EN4549A010
B0504			0,889	EN4549B005	B1012			0,889	EN4549B010
A0505		7,925	0,711	EN4549A005	A1203	19,050	4,763	0,711	EN4549A012
B0505			0,889	EN4549B005	B1203			0,889	EN4549B012
A0506		9,525	0,711	EN4549A005	A1204		6,350	0,711	EN4549A012
B0506			0,889	EN4549B005	B1204			0,889	EN4549B012
A0603	9,525	4,763	0,711	EN4549A006	A1206		9,525	0,711	EN4549A012
B0603			0,889	EN4549B006	B1206			0,889	EN4549B012
A0604		6,350	0,711	EN4549A006	A1208		12,700	0,711	EN4549A012
B0604			0,889	EN4549B006	B1208			0,889	EN4549B012
A0605		7,925	0,711	EN4549A006	A1210		15,875	0,711	EN4549A012
B0605			0,889	EN4549B006	B1210			0,889	EN4549B012
A0606		9,525	0,711	EN4549A006	A1212		19,050	0,711	EN4549A012
B0606			0,889	EN4549B006	B1212			0,889	EN4549B012
A0608		12,700	0,711	EN4549A006	A1603	25,400	4,763	0,711	EN4549A016
B0608			0,889	EN4549B006	B1603			0,889	EN4549B016
A0610		15,875	0,711	EN4549A006	A1604		6,350	0,711	EN4549A016
B0610			0,889	EN4549B006	B1604			0,889	EN4549B016
A0803	12,700	4,763	0,711	EN4549A008	A1606		9,525	0,711	EN4549A016
B0803			0,889	EN4549B008	B1606			0,889	EN4549B016
A0804		6,350	0,711	EN4549A008	A1608		12,700	0,711	EN4549A016
B0804			0,889	EN4549B008	B1608			0,889	EN4549B016
A0806		9,525	0,711	EN4549A008	A1610		15,875	0,711	EN4549A016
B0806			0,889	EN4549B008	B1610			0,889	EN4549B016
A0808		12,700	0,711	EN4549A008	A1612		19,050	0,711	EN4549A016
B0808			0,889	EN4549B008	B1612			0,889	EN4549B016
A0810		15,875	0,711	EN4549A008	A1616		25,400	0,711	EN4549A016
B0810			0,889	EN4549B008	B1616			0,889	EN4549B016
A1003	15,875	4,763	0,711	EN4549A010	A2012	31,750	19,050	0,711	EN4549A020
B1003			0,889	EN4549B010	B2012			0,889	EN4549B020
A1004		6,350	0,711	EN4549A010	A2403	38,100	4,763	0,711	EN4549A024
B1004			0,889	EN4549B010	B2403			0,889	EN4549B024

[a] This code corresponds to :
- tube wall thickness (A : 0,711 mm; B : 0,889 mm);
- nominal diameter of the run sides given in 16th of inches within two digits;
- nominal diameter of the leg side given in 16th of inches within two digits.

[b] When weld end option code is 1, the other side is as shown on the bottom of Figure 1.