



# SLOVENSKI STANDARD

## SIST EN 3869:2005

01-junij-2005

Nadomešča:  
SIST EN 3869:2004

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**Aerospace series - Pipe couplings, loose flanges and seals - Seals in fluorocarbon rubber and armature in aluminium alloy**

Aerospace series - Pipe couplings, loose flanges and seals - Seals in fluorocarbon rubber and armature in aluminium alloy

Luft- und Raumfahrt - Rohrverbindungen mit losen Flanschen und Flanschdichtungen - Dichtungen aus Fluorcarbon-Elastomer mit Aluminiumarmierung

Série aérospatiale - Raccords, brides amovibles et joints - Joints en élastomère fluorocarbone et armature en alliage d'aluminium

**Ta slovenski standard je istoveten z: EN 3869:2004**

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**ICS:**

49.025.20	Aluminij	Aluminium
49.080	Letalski in vesoljski hidravlični sistemi in deli	Aerospace fluid systems and components

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English version

**Aerospace series - Pipe couplings, loose flanges and seals -  
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d'aluminium

Luft- und Raumfahrt - Rohrverbindungen mit losen  
Flanschen und Flachdichtungen - Dichtungen aus Fluor-  
Elastomer mit Aluminiumarmierung

This European Standard was approved by CEN on 11 September 2003.

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

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<b>Contents</b>		<b>Page</b>
<b>Foreword</b> .....		<b>3</b>
<b>1</b>	<b>Scope</b> .....	<b>4</b>
<b>2</b>	<b>Normative references</b> .....	<b>4</b>
<b>3</b>	<b>Required characteristics</b> .....	<b>4</b>
<b>4</b>	<b>Designation</b> .....	<b>6</b>
<b>5</b>	<b>Marking</b> .....	<b>6</b>
<b>6</b>	<b>Technical specification</b> .....	<b>6</b>

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[SIST EN 3869:2005](https://standards.iteh.ai/catalog/standards/sist/3fee070a-6b6a-42af-b5b8-1d4191713792/sist-en-3869-2005)

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## Foreword

This document (EN 3869:2004) 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 May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

This document supersedes EN 3869:2003.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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 the United Kingdom.

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## EN 3869:2004 (E)

### 1 Scope

This standard specifies the characteristics of seals for pipe couplings in fluorocarbon rubber and armature in aluminium alloy, for aerospace applications.

NOTE Assembly in accordance with TR 4053

### 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.

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2699, *Aerospace series — Aluminium alloy (5086) — Annealed and straightened (H111) — Drawn bar —  $6 \leq D \leq 50$  mm<sup>1)</sup>*

EN 2798, *Aerospace series — Fluorocarbon rubber (FPM) — Low compression set — Hardness 80 IRHD<sup>2)</sup>*

EN 4054, *Aerospace series — Pipe couplings, loose flanges and seals — Seals in fluorocarbon rubber and armature in aluminium alloy — Technical specification*

TR 4053, *Aerospace series — Pipe couplings, loose flanges and seals in titanium alloy — Assembly recommendations<sup>3)</sup>*

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### 3 Required characteristics

#### 3.1 Configuration – Dimensions – Tolerances – Masses

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

#### 3.2 Materials


EN 2699 and EN 2798

#### 3.3 Bonding

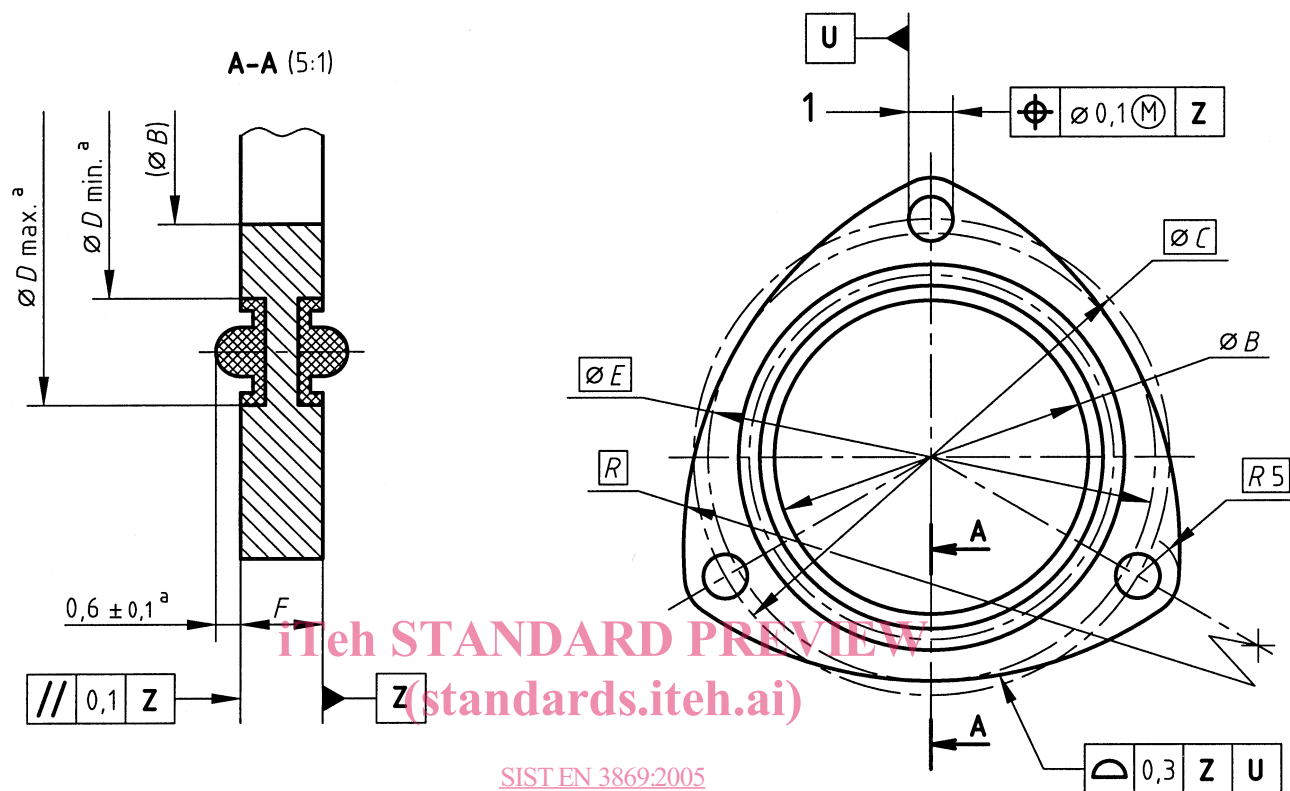
Two parts seal shall be bonded.

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1) Published as AECMA Standard at the date of publication of this standard  
2) Published as AECMA Prestandard at the date of publication of this standard  
3) Published as AECMA Technical Report at the date of publication of this standard

$R_a 3,2$  /  All surfaces except rubber parts

Remove sharp edges 0,2 to 0,4.



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### Key

1 three equidistant holes with diameter 5,4 H13

<sup>a</sup> Form not stated are left to the manufacturer's discretion. Calibration of sealing part dimensioning should not allow any bead outside lateral cavities while squeezing.

Figure 1

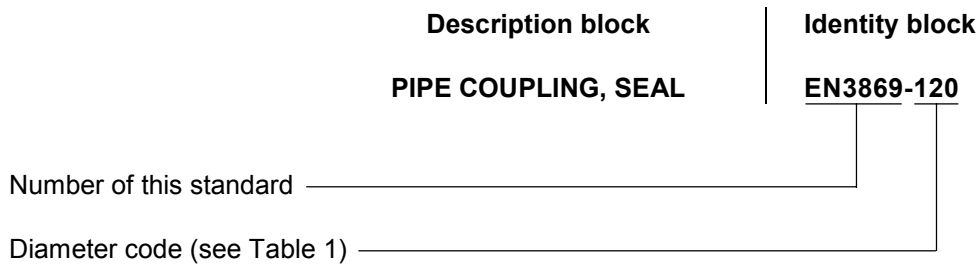
Table 1

Diameter code	Tube nominal diameter	B 0 -0,5	C	D		E	F ± 0,13	R	Mass <sup>a</sup>
				max.	min.				
120	12	10,2	29	20,5	12,9	25,5	2,5	160,7	35
140	14	12,2	31	22,5	14,9	27,5		92,4	38
160	16	14,2	34	24,5	16,9	29,5		92,2	43
180	18	16,2	36	26,5	18,9	31,5		75	46
200	20	18,2	38	28,5	20,9	34,5		54,5	50
220	22	20,2	40	30,5	22,9	36,5		51,4	53
250	25	23,2	43	33,5	25,9	39,5		50,3	57
280	28	26,2	46	36,5	28,9	42,5		49	61
320	32	30,2	50	40,5	32,9	46,5		48,5	66
400	40	38,2	58	48,5	40,9	54,5		49,2	76

<sup>a</sup> Mass ≈ quoted in kg/1 000 parts

**EN 3869:2004 (E)****4 Designation**

EXAMPLE



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

**5 Marking**

EN 2424, category G

**6 Technical specification**

EN 4054

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