



# SLOVENSKI STANDARD SIST EN 3248:2002

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**Aerospace series - Pipe coupling 8°30' in titanium alloy - Adaptors, reduced pipe end, with lockring**

Aerospace series - Pipe coupling 8°30' in titanium alloy - Adaptors, reduced pipe end, with lockring

Luft- und Raumfahrt - Rohrverschraubung 8°30' aus Titanlegierung - Anschlussverschraubungen, reduziertes Rohrende, mit Sicherungsring

Série aérospatiale - Systeme de raccordement 8°30' en alliage de titane - Raccords de réduction a planter, a bague de sécurité

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**Ta slovenski standard je istoveten z: EN 3248:2001**

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**ICS:**

49.080 Štejni sistemi in deli za letalstvo in vesolje  
Aerospace fluid systems and components

**SIST EN 3248:2002**

**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 3248**

September 2001

ICS 49.080

English version

**Aerospace series - Pipe coupling 8°30' in titanium alloy -  
Adaptors, reduced pipe end, with lockring**

This European Standard was approved by CEN on 6 January 2001.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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

## Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries 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 March 2002, and conflicting national standards shall be withdrawn at the latest by March 2002.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## 1 Scope

This standard specifies the characteristics for adaptors with reduced pipe end, with lockring, for pipe couplings 8°30', in titanium alloy, for installing in a boss, for aerospace applications.

Nominal pressure: up to 28 000 kPa

Temperature range: – 55 °C to 135 °C

## 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 5855-3	Aerospace – MJ threads – Part 3: Limit dimensions for fittings for fluid systems
EN 2424	Aerospace series – Marking of aerospace products
EN 2491	Aerospace series – Molybdenum disulphide dry lubricants – Coating methods
EN 2602	Aerospace series – Ports for installation of straight metric-size unions with locking ring – Dimensions <sup>1)</sup>
EN 2603	Aerospace series – Straight metric-size unions with locking ring – Port end – Dimensions <sup>1)</sup>
EN 2604	Aerospace series – Straight metric-size unions with locking ring – 8°30' union interface – Dimensions <sup>1)</sup>
EN 2645	Aerospace series – Straight metric-size unions with locking ring – Locking ring – Dimensions <sup>1)</sup>
EN 3079	Aerospace series – Pipe coupling 8°30' up to 28 000 kPa – Adaptors – Metric series – Technical specification <sup>1)</sup>
EN 3311	Aerospace series – Titanium alloy TI-P64001 – Annealed – Bar for machining – $D \leq 150$ mm <sup>1)</sup>
EN 3314	Aerospace series – Titanium alloy TI-P64001 – Solution treated and aged – Bar for machining – $D \leq 75$ mm <sup>1)</sup>
AMS 2488D	Anodic treatment --Titanium and titanium alloys -- Solution pH 13 or higher <sup>2)</sup>

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

2) Published by: Society of Automotive Engineers, Inc. (SAE), 400 Commonwealth Drive, Warrendale, PA15096-0001

### 3 Required characteristics

#### 3.1 Configuration – Dimensions – Mass

According to figure 1 and table 1. The values apply before lubricating or anodizing.

#### 3.2 Surface roughness

According to figure 1, unless otherwise specified in the design documentation

#### 3.3 Materials (for adaptor)

According to EN 3311 or EN 3314

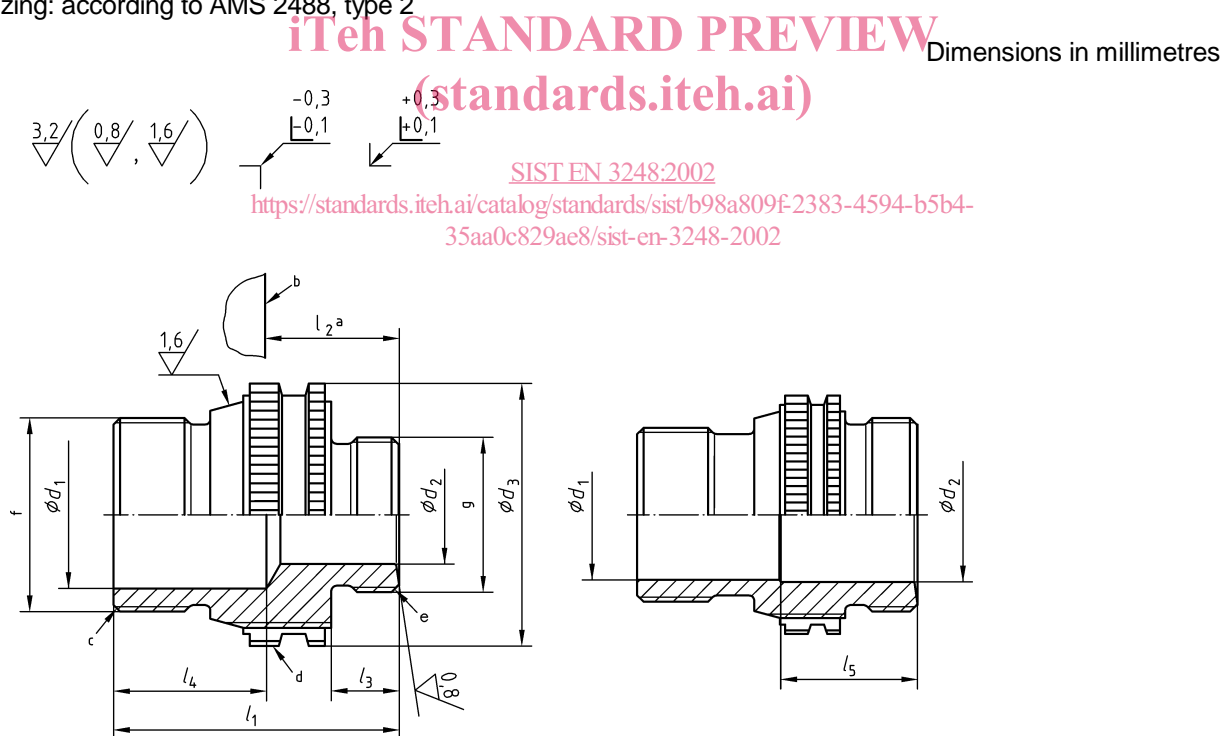
#### 3.4 Surface treatments (for adaptor)

Lubrication: according to EN 2491, on all surfaces except in the flow hole.

Film thickness: 0,005 mm to 0,013 mm

Alternative:

Anodizing: according to AMS 2488, type 2



**Figure 1**

Table 1

Dimensions in millimetres

Code <sup>a</sup>	Port end		Adaptor interface (reduced)		$d_1$ +0,2 0	$d_2^e$ Ref.	$d_3^f$ Ref.	$l_1$ Ref.	$l_2$ ± 0,5	$l_3$ ± 0,15	$l_4$ ± 0,40	$l_5$ ± 0,40	Mass g/piece max.	Lock- ring code <sup>f</sup>
	Thread 1 <sup>d</sup> 4h6h	<sup>b</sup>	Thread 2 <sup>d</sup> 4h6h	Code <sup>c</sup>										
0805	MJ 8 × 1	06	MJ10 × 1	05	4,40	4,2	14,7	30,6	15,8	7,25	14,75	–	6,75	098
1005 1006	MJ10 × 1	08	MJ10 × 1 MJ12 × 1,25	05 06	6,10	4,2 5,0	17,8	33,0 34,5	17,0 18,5	7,25 8,75	16,15	–	10,74 12,77	125
1205 1206 1208	MJ12 × 1,25	10	MJ10 × 1 MJ12 × 1,25 MJ14 × 1,5	05 06 08	7,70	4,2 5,0 6,7	19,5	33,7 35,2 37,0	17,0 18,5 20,3	7,25 8,75 10,55	16,70	–	13,51 16,51 16,28	136
1405 1406 1408 1410	MJ14 × 1,5	12	MJ10 × 1 MJ12 × 1,25 MJ14 × 1,5 MJ16 × 1,5	05 06 08 10	9,00	4,2 5,0 6,7 8,7	21,0	34,3 35,8 37,6 37,6	17,0 18,5 20,3 20,3	7,25 8,75 10,55 10,55	17,45	–	16,11 19,95 19,25 21,53	153
1606 1608 1610 1612	MJ16 × 1,5	14	MJ12 × 1,25 MJ14 × 1,5 MJ16 × 1,5 MJ18 × 1,5	06 08 10 12	10,70	5,0 6,7 8,7 10,6	22,6	36,5 38,3 38,3 38,3	18,5 20,3	8,75	17,90	–	24,44 23,31 25,71 21,75	170
1808 1810 1812 1814	MJ18 × 1,5	16	MJ14 × 1,5 MJ16 × 1,5 MJ18 × 1,5 MJ20 × 1,5	08 10 12 14	12,50	6,7 8,7 10,6 11,4	26,4	39,0 39,0 39,0 39,0	20,3	10,55	18,65	–	30,95 33,72 29,51 31,06	192
2010 2012 2014 2016	MJ20 × 1,5	18	MJ16 × 1,5 MJ18 × 1,5 MJ20 × 1,5 MJ22 × 1,5	10 12 14 16	14,20	8,7 10,6 11,4 13,3	28,0	40,9 40,9 40,9 40,9	10,55	20,50	20,50	–	40,02 35,51 37,22 35,44	214
2212 2214 2216 2218	MJ22 × 1,5	20	MJ18 × 1,5 MJ20 × 1,5 MJ22 × 1,5 MJ24 × 1,5	12 14 16 18	15,90	10,6 11,4 13,3 15,3	30,2	41,5 41,5 41,5 41,5	20,5	20,50	20,50	–	42,20 44,01 42,30 40,49	231
2414 2416 2418 2420	MJ24 × 1,5	22	MJ20 × 1,5 MJ22 × 1,5 MJ24 × 1,5 MJ27 × 1,5	14 16 18 20	17,65	11,4 13,3 15,3 18,0	33,7	42,2 42,2 42,2 42,4	20,7	10,75	–	21,45	55,71 53,90 52,09 47,55	253
2716 2718 2720 2722	MJ27 × 1,5	25	MJ22 × 1,5 MJ24 × 1,5 MJ27 × 1,5 MJ30 × 1,5	16 18 20 22	20,20	13,3 15,3 18,0 20,8	37,0	43,3 43,3 43,5 43,5	20,6	10,55 10,75	23,30	– 21,25	72,48 73,11 65,01 56,01	295
3018 3020 3022 3025	MJ30 × 1,5	28	MJ24 × 1,5 MJ27 × 1,5 MJ30 × 1,5 MJ33 × 1,5	18 20 22 25	22,80	15,3 18,0 20,8 22,4	40,7	44,3 44,5 44,5 44,5	20,8	10,55	23,70	–	89,13 82,78 75,77 76,57	320
3320 3322 3325 3328	MJ33 × 1,5	32	MJ27 × 1,5 MJ30 × 1,5 MJ33 × 1,5 MJ36 × 1,5	20 22 25 28	25,40	18,0 20,8 22,4 25,6	43,0	45,5 45,5 45,5 45,5	10,75	–	25,40	– 21,30	101,75 91,62 94,50 83,06	350

<sup>a</sup> Corresponds to the thread diameter of port end and the code of thread diameter of adaptor interface

<sup>b</sup> Corresponds to the pipe normal outside diameter

<sup>c</sup> Corresponds to the pipe reduced outside diameter

<sup>d</sup> According to ISO 5855-3

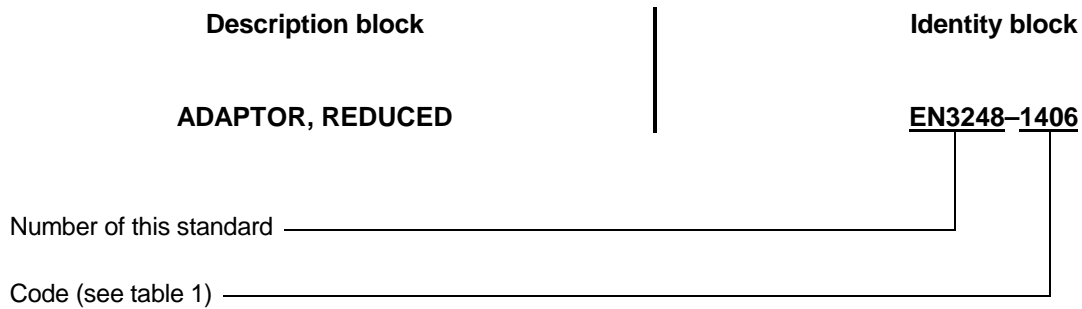
<sup>e</sup> According to EN 2604

<sup>f</sup> According to EN 2645

EN 3248:2001 (E)

#### 4 Designation

EXAMPLE:



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

#### 5 Marking

According to EN 2424, style G

#### 6 Technical specification

According to EN 3079, type II

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