



**SLOVENSKI STANDARD**  
**SIST EN 3868:2004**

**01-maj-2004**

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**Aerospace series - Pipe couplings, loose flanges and seals - Flange connectors, welded, in titanium alloy TI-P64001**

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Ta slovenski standard je istoveten z: **SIST EN 3868:2004** **EN 3868:2003**  
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**ICS:**

49.080

Letalski in vesoljski  
hidravlični sistemi in deli

Aerospace fluid systems and  
components

**SIST EN 3868:2004**

**en**

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EUROPEAN STANDARD

**EN 3868**

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2003

ICS 49.080

English version

**Aerospace series - Pipe couplings, loose flanges and seals -  
Flange connectors, welded, in titanium alloy TI-P64001**

This European Standard was approved by CEN on 2 June 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, Slovakia, 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**

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## Foreword

This document (EN 3868:2003) 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 July 2003, and conflicting national standards shall be withdrawn at the latest by July 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 the United Kingdom.

## 1 Scope

This standard specifies the characteristics of welded flanged connectors in titanium alloy TI-P64001 for aerospace applications.

NOTE: Assembly in accordance with TR 4053

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## 2 Normative references

ISO 286-2	ISO system of limits and fits – Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts
EN 2000	Aerospace series Quality assurance – EN aerospace products – Approval of the quality system of manufacturers
EN 2424	Aerospace series – Marking of aerospace products
EN 2656	Aerospace series – Pipe couplings up to 56000 kPa – Fitting end, welded – Geometrical configuration <sup>1)</sup>
EN 3310	Aerospace series – Titanium alloy TI-P64001 – Not heat treated – Grade 2 forging stock, for annealed forgings – $a$ or $D \leq 360$ mm <sup>1)</sup>
EN 3311	Aerospace series – Titanium alloy TI-P64001 – Annealed – Bar for machining – $D \leq 150$ mm <sup>1)</sup>
TR 4053	Aerospace series – Pipe couplings, loose flanges and seals in titanium alloy – Assembly recommendations <sup>2)</sup>

<sup>1)</sup> Published as AECMA Prestandard at the date of publication of this standard

<sup>2)</sup> Published as AECMA Technical Report at the date of publication of this standard

EN 3868:2003 (E)

### 3 Required characteristics

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

See figure 1 and table 1. Dimensions and tolerances are in millimetres.

#### 3.2 Material

EN 2530

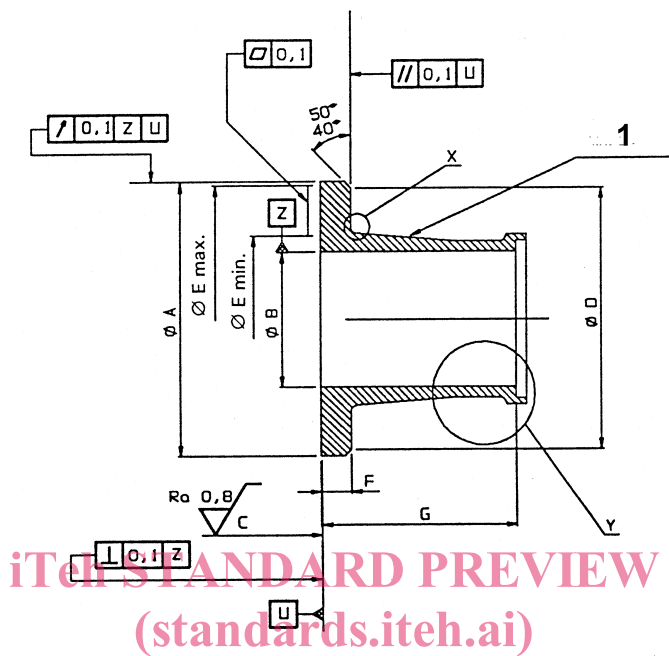
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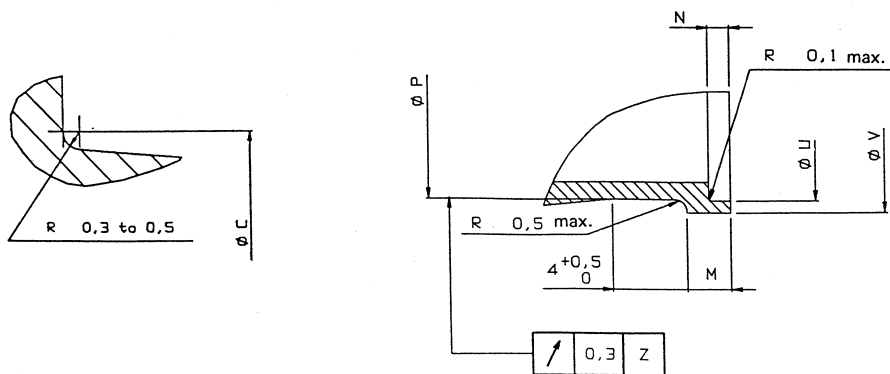
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$Ra\ 3,2 / ( Ra\ 0,8 / c )$

Remove sharp edges 0,1 to 0,4



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**Key**

- 1 Marking

Figure 1

Table 1

Dimensional code	Tube		A <sup>1)</sup>	B	C	D	E		F	G	M	N	P	U	V																
	Nominal diameter	Thickness	H10	0 -0,1	0 -0,1	0 -0,3	max.	min.	± 0,5	± 0,2	+0,1 0	+0,1 0	+0,1 0	+0,1 0	+0,1 0																
120060	12	0,6 *	21,1	10,8	14,2	19,4	20,5	12,9	2,3	15,2	1,6	0,8	12	12,1	12,9																
120080		0,8		10,4											13,1																
120100		1		10											13,1																
140060	14	0,6	23,1	12,8	16,2	21,4	22,5	14,9					2,8	15,7	1,8	0,9	14	14,1	14,9												
140080		0,8 *		12,4															15,1												
140100		1 *		12															15,1												
160060	16	0,6 *	26,1	14,8	19,2	24,4	24,5	16,9									3,3	16,2	2,2	1,1	16	16,1	16,9								
160080		0,8		14,4																			17,1								
160100		1 *		14																			17,1								
180060	18	0,6	28,1	16,8	21,2	26,4	26,5	18,9													3,3	16,2	2,2	1,1	18	18,1	18,9				
180080		0,8		16,4																							19,1				
180100		1 *		16																							19,1				
200060	20	0,6 *	30,1	18,8	23,2	28,4	28,5	20,9	3,3	16,2	2,2	1,1													20	20,1	20,9				
200080		0,8		18,4																							21,1				
200100		1		18																							21,1				
220060	22	0,6	32,1	20,8	25,2	30,4	30,5	22,9					3,3	16,2	2,2	1,1									22	22,1	22,9				
220080		0,8 *		20,4																							23,1				
220100		1		20																							23,1				
250080	25	0,8	35,1	23,4	28,2	33,4	33,5	25,9									3,3	16,2	2,2	1,1					25	25,1	26,1				
250100		1		23																							26,1				
280080	28	0,8 *	38,1	26,4	31,2	36,4	36,5	28,9																	3,3	16,2	2,2	1,1	28	28,1	29,1
280100		1 *		26																	29,1										
320080	32	0,8	42,1	30,4	35,2	40,4	40,5	32,9													3,3	16,2	2,2	1,1					32	32,1	33,1
320100		1 *		30																											33,1
400080	40	0,8	50,1	38,4	43,2	48,4	48,5	40,9	3,3	16,2	2,2	1,1																	40	40,1	41,1
400100		1		38																											41,1

1) Tolerance in accordance with ISO 286-2

\*) Welding preparation in accordance with EN 2656

## 4 Designation

EXAMPLE :

Description block

Identity block

FLANGE CONNECTOR, WELDED

EN3868- 120100

Number of this standard \_\_\_\_\_

Dimensional code (see table 1) \_\_\_\_\_

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