



# SLOVENSKI STANDARD SIST EN 3868:2005

01-junij-2005

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SIST EN 3868:2004

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

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

**ITeH STANDARD PREVIEW**  
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Luft- und Raumfahrt - Rohrverbindungen mit losen Flanschen und Flanschdichtungen - Schweißstutzen aus Titanlegierung TI-P64001

[SIST EN 3868:2005](#)

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Série aérospatiale - Raccords, brides amovibles et joints - Raccords a souder en alliage de titane TI-P64001

**Ta slovenski standard je istoveten z: EN 3868:2004**

**ICS:**

49.080 Ščp \ ãš A^• [ |b \ ã Aerospace fluid systems and components  
Cã:ãç|ã } ãã c^ { ãš A^ã

**SIST EN 3868:2005 en**

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EUROPEAN STANDARD

EN 3868

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2004

ICS 49.080

Supersedes EN 3868:2003

English version

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

Série aéronautique - Raccords, brides amovibles et joints -  
Raccords à souder en alliage de titane TI-P64001

Luft- und Raumfahrt - Rohrverbindungen mit losen  
Flanschen und Flachdichtungen - Schweißstutzen aus  
Titanlegierung TI-P64001

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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## Foreword

This document (EN 3868:2004) 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 3868:2003.

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 3868:2004 (E)****1 Scope**

This standard specifies the characteristics of welded flanged connectors in TI-P64001, 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.

ISO 286-2, *ISO system of limits and fits — Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts*

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

EN 3310, *Aerospace series — Titanium alloy TI-P64001 — Not heat treated — Grade 2 forging stock, for annealed forgings — a or D ≤ 360 mm<sup>1)</sup>*

EN 3311, *Aerospace series — Titanium alloy TI-P64001 — Annealed — Bar for machining — D ≤ 150 mm<sup>1)</sup>*

EN 9100, *Aerospace series — Quality management systems — Requirements (based on ISO 9001:2000) and Quality systems — Model for quality assurance in design, development, production, installation and servicing (based on ISO 9001:1994)*

TR 4053, *Aerospace series — Pipe couplings, loose flanges and seals in titanium alloy — Assembly recommendations<sup>2)</sup>*

**3 Required characteristics****3.1 Configuration – Dimensions – Tolerances – Masses**

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

**3.2 Materials**

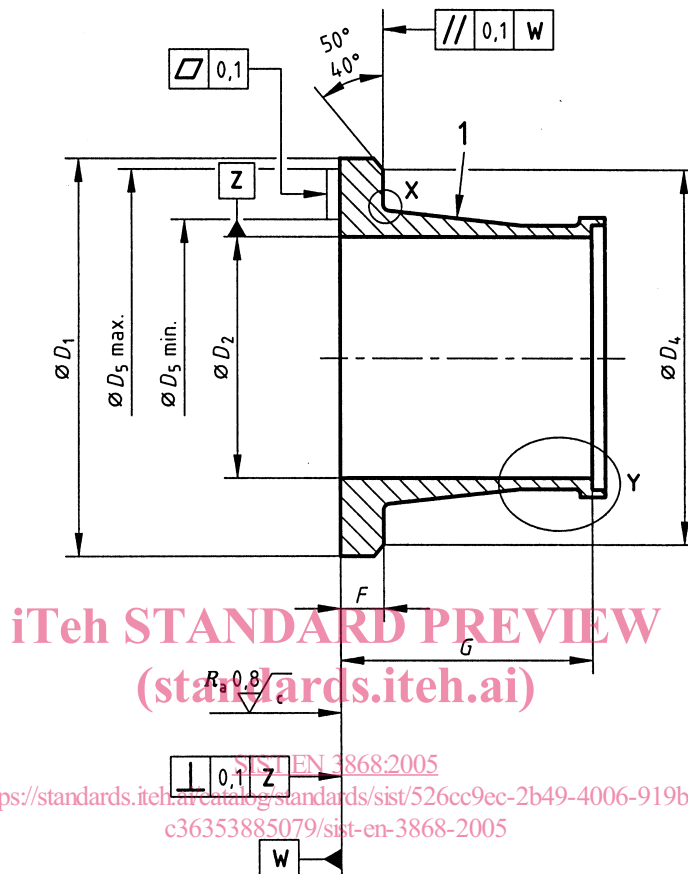
EN 3310 or EN 3311

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

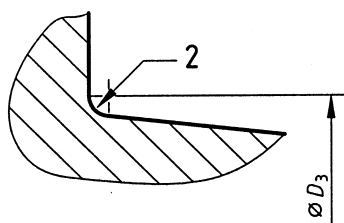
<sup>2)</sup> Published as AECMA Technical Report at the date of publication of this standard

$$R_a 3,2 / \left[ R_a 0,8 / c \right]$$

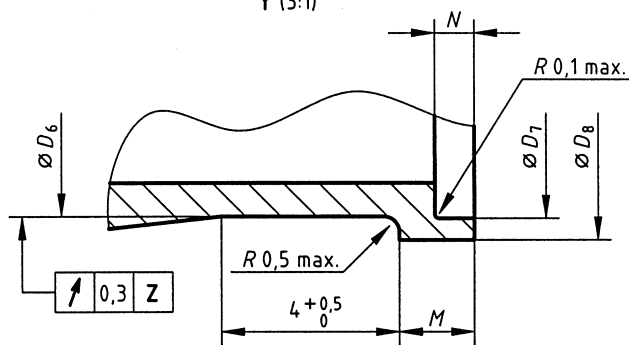
Remove sharp edges 0,2 to 0,4



X (3:1)



Y (3:1)



**Key**

- 1 marking
- 2 radius 0,3 to 0,5

Figure 1

Table 1

Dimensional code	Tube		$D_1$	$D_2$	$D_3$	$D_4$	$D_5$		$F$	$G$	$M$	$N$	$D_6$	$D_7$	$D_8$	Mass <sup>b</sup>
	nominal diameter	h10 <sup>a</sup>					max.	min.								
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	68
120080		0,8		10,4											13,1	73
120100		1		10											13,1	77
140060	14	0,6	23,1	12,8	16,2	21,4	22,5	14,9	2,3	15,2	1,6	0,8	14	14,1	14,9	83
140080		0,8		12,4											15,1	89
140100		1		12											15,1	94
160060	16	0,6	26,1	14,8	19,2	24,4	24,5	16,9	2,8	15,7	1,8	0,9	16	16,1	16,9	110
160080		0,8		14,4											17,1	116
160100		1		14											17,1	122
180060	18	0,6	28,1	16,8	21,2	26,4	26,5	18,9	2,8	15,7	1,8	0,9	18	18,1	18,9	138
180080		0,8		16,4											19,1	145
180100		1		16											19,1	152
200060	20	0,6	30,1	18,8	23,2	28,4	28,5	20,9	3,3	16,2	2,4	1,2	20	20,1	20,9	159
200080		0,8		18,4											21,1	167
200100		1		18											21,1	175
220060	22	0,6	32,1	20,8	25,2	30,4	30,5	22,9	3,3	16,2	2,4	1,2	22	22,1	22,9	181
220080		0,8		20,4											23,1	190
220100		1		20											23,1	199
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	241
250100		1		23											26,1	251
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	284
280100		1		26											29,1	296
320080	32	0,8	42,1	30,4	35,2	40,4	40,5	32,9	3,3	16,2	2,4	1,2	32	32,1	33,1	347
320100		1		30											33,1	360
400080	40	0,8	50,1	38,4	43,2	48,4	48,5	40,9	3,3	16,2	2,8	1,3	40	40,1	41,1	495
400100		1		38											41,1	512

<sup>a</sup> Tolerance in accordance with ISO 286-2

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