

BS EN 4025:2010



BSI Standards Publication

Aerospace series — Pipe coupling 8°30' in titanium alloy — Elbows 45°, bulkhead

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The UK participation in its preparation was entrusted to Technical Committee ACE/69, Aerospace hydraulic systems, fluids and components.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Date	Text affected
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EUROPEAN STANDARD

EN 4025

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2010

ICS 49.080

Supersedes EN 4025:2001

English Version

**Aerospace series - Pipe coupling 8°30' in titanium alloy - Elbows
45°, bulkhead**

Série aérospatiale - Système de raccordement 8°30' en
alliage de titane - Raccords coudés à 45° pour traversée de
cloison

Luft- und Raumfahrt - Rohrverschraubung 8°30' aus
Titanlegierung - Winkel-Schottverschraubungen 45°

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Foreword

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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 ASD, prior to its presentation to CEN.

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Contents

Page

Foreword	2
1 Scope	4
2 Normative references	4
3 Required characteristics	4
4 Designation	6
5 Marking	6
6 Technical specification	7
7 Installation details	7



1 Scope

This standard specifies the characteristics of elbows 45°, bulkhead, for pipe couplings 8°30', in titanium alloy, for aerospace applications.

Nominal pressure: up to 28 000 kPa.

Temperature range: – 55 °C to 135 °C.

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 2424:2008, *Aerospace series — Marking of aerospace products*

EN 2491, *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*

EN 3267, *Aerospace series — Washers, bulkhead, in titanium alloy*

EN 3274:2010, *Aerospace series — Pipe coupling 8°30' — Thread end — Geometric configuration*

EN 3275:2002, *Aerospace series — Pipe coupling 8°30' up to 28 000 kPa — Dynamic beam seal — Metric series — Technical specification*

EN 3311, *Aerospace series — Titanium alloy TI-P64001 (Ti-6Al-4V) — Annealed — Bar for machining — $D < 110$ mm*

EN 3312, *Aerospace series — Titanium alloy TI-P64001 — Grade 2 — Annealed — Forgings — $D_e \leq 150$ mm¹⁾*

EN 3314, *Aerospace series — Titanium alloy TI-P64001 — Solution treated and aged — Bar for machining — $D \leq 75$ mm¹⁾*

EN 3315, *Aerospace series — Titanium alloy TI-P64001 — Solution treated and aged — Forgings — $D_e \leq 75$ mm¹⁾*

ISO 5855-3, *Aerospace — MJ threads — Part 3: Limit dimensions for fittings for fluid systems*

3 Required characteristics

3.1 Configuration — Dimensions — Mass

According to Figure 1 and Table 1. The values apply before lubricating.

Dimensions not specified are at the manufacturer's option provided that the qualification and acceptance requirements of EN 3275:2002, type II are met.

3.2 Surface roughness

According to Figure 1, unless otherwise specified in the design documentation.

1) Published as ASD-STAN Prestandard at the date of publication of this standard by Aerospace and Defence Industries Association of Europe-Standardization (ASD-STAN) (www.asd-stan.org).

3.3 Materials

According to EN 3311 or EN 3314, EN 3312 or EN 3315.

3.4 Surface treatment

Lubrication: according to EN 2491, on threads and sealing faces.

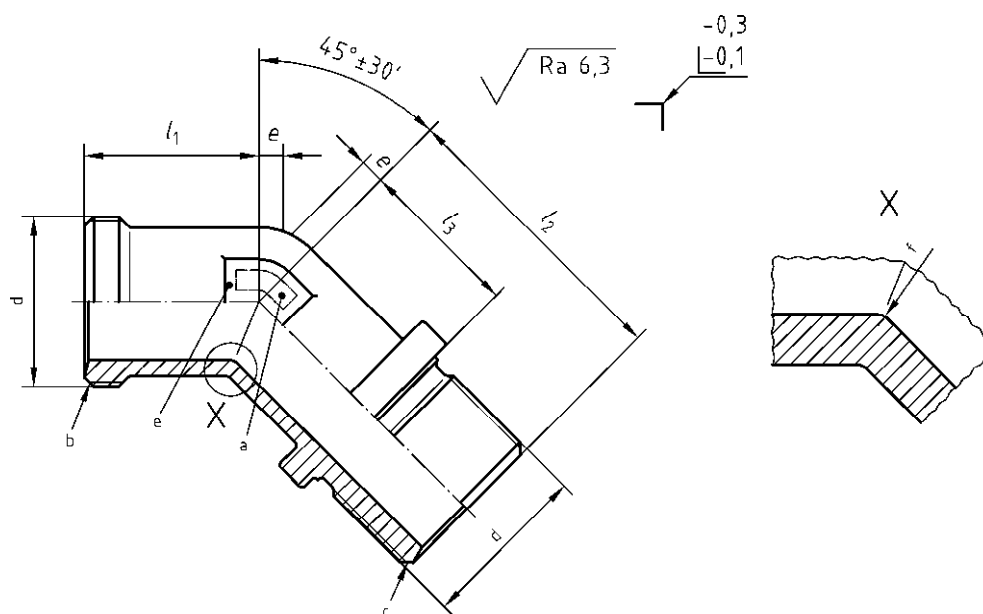
Prior to application of the lubricant, the surface shall be abrasive blasted using non-metallic grit.

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

3.5 Internal surface finishing

Finishing shall give a radius R of 0,3 mm to 1,0 mm and a surface roughness of 0,8 μm . Hand deburring is not permitted.

Dimensions in millimetres



- a Area for marking
- b According to EN 3274:2010, form C
- c According to EN 3274:2010, form D
- d Thread
- e Across flats s
- f Radius of the complete internal junction shall be between $R\ 0,3$ to $1,0$

Figure 1

Table 1

Dimensions in millimetres

Code ^a	Thread ^b	e^c	l_1^c	L_2^c	L_3	s^d	Mass g/piece max.
	4g6g		$\pm 0,2$	$\pm 0,2$	$\pm 0,2$	h13	
05	MJ10 × 1	0,9	16,3	32,3	16,8	8	10,1
06	MJ12 × 1,25	1,0	17,8	37,0	19,0	9	16,1
08	MJ14 × 1,5	1,4	20,8	40,8	19,8	11	22,9
10	MJ16 × 1,5	1,8	21,8	40,8	19,8	13	29,6
12	MJ18 × 1,5	2,2	23,8	42,8	19,8	15	37,0
14	MJ20 × 1,5	2,4	23,8	42,8	19,8	16	58,7
16	MJ22 × 1,5	2,8	25,8	43,8	20,8	18	64,6
18	MJ24 × 1,5	3,2	27,8	44,8	21,8	21	71,7
20	MJ27 × 1,5	4,7	27,8	45,8	22,8	24	89,2
22	MJ30 × 1,5	4,3	30,8	46,8	23,8	27	104,3
25	MJ33 × 1,5	4,6	32,8	48,8	25,8	30	139,1
28	MJ36 × 1,5	5,3	34,8	50,8	26,3	34	176,7
32	MJ39 × 1,5	5,0	36,4	53,8	29,5	36	212,6

^a Corresponds to the pipe nominal outside diameter.

^b According to ISO 5855-3.

^c Drill depth dimension = $l_1 + e$ or $l_2 + e$.

^d Across flats.

4 Designation

EXAMPLE

Description block	Identity block
ELBOW 45°, BULKHEAD	EN4025-05

Number of this standard _____

Code (see Table 1) _____

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

5 Marking

According to EN 2424:2008, style A and Figure 1.

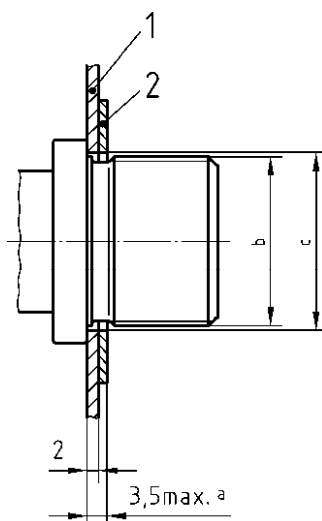
6 Technical specification

According to EN 3275:2002, type II.

7 Installation details

See Figure 2.

Dimensions in millimetres



Key

- 1 Bulkhead
- 2 Washer according to EN 3267

- a Grip length
- b Thread
- c Thread + 0,5

Figure 2

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