SLOVENSKI STANDARD
SIST EN 2258:2001

01-januar-2001

Aerospace series - Circular tubes for fluids in aluminium and aluminium alloys - Diameter 3,2 mm <= D <= 100 mm - Thickness 0,6 mm <= a <= 2,5 mm - Dimensions

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Luft- und Raumfahrt - Runde Leitungsrohre aus Aluminium und Aluminiumlegierungen - Durchmesser 3,2 mm <= D <= 100 mm - Wanddicken 0,6 mm <= a <= 2,5 mm - Maße

Série aérospatiale - Tubes circulaires pour canalisations en aluminium et alliages d'aluminium - Diametres 3,2 mm <= D <= 100 mm - Epaisseurs 0,6 mm <= a <= 2,5 mm - Dimensions

Ta slovenski standard je istoveten z: **EN 2258:1997**

ICS:

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

SIST EN 2258:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 2258

January 1997

ICS 49.040.10

Descriptors: aircraft industry, pipelines, pipes, tubes, aluminium, aluminium alloys, dimensions

English version

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: 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of an identical text or by endorsement, at the latest by July 1997, and conflicting national standards shall be withdrawn at the latest by July 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

0 Introduction

This standard is part of the series of EN metallic material standards for aerospace applications. The general organization of this series is described in EN 4258.

1 Scope

This standard specifies the dimensions and tolerances of circular tubes for fluids in aluminium and aluminium alloys, diameter 3,2 mm ≤ D ≤ 100 mm, thickness 0,6 mm ≤ a ≤ 2,5 mm, for aerospace applications.

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.

EN 3848 Aerospace series - Semi-finished products - Method of measuring form deviations [1)]

EN 4258 Aerospace series - Metallic materials - General organization of standardization - Links between types of EN standards and their use [1)]

3 Form

See figure 1.

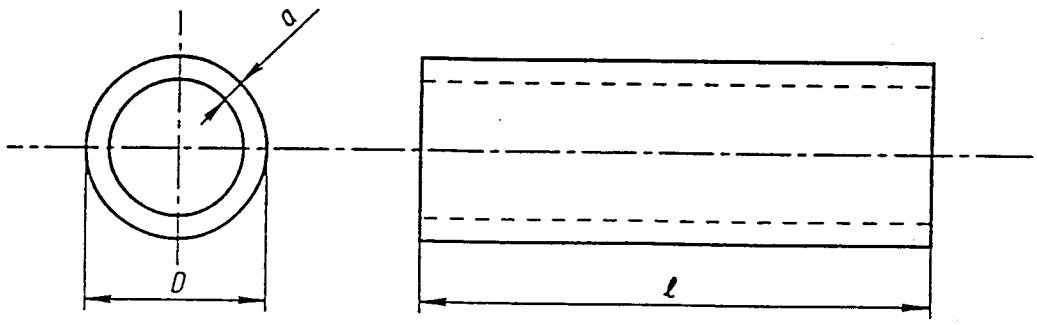

Figure 1

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

4 Recommended dimensions and mass

4.1 Diameter, thickness, section and mass

See table 1.

Table 1

D Nominal mm	*a* Nominal mm	Sections 1) of flow mm²	Sections 1) of annulus mm²	Linear mass 2) kg/m	*D* Nominal mm	*a* Nominal mm	Sections 1) of flow mm²	Sections 1) of annulus mm²	Linear mass 2) kg/m
3,2	0,6	3,14	4,90	0,0138	32	0,8	725,8	78,4	0,220
4	0,8	4,5	8,04	0,0225	32	1,0	706,9	97,4	0,273
5	0,6	11,3	8,29	0,023	32	1,2	688,1	116,1	0,325
5	0,8	9,1	10,55	0,030	32	1,6	651,4	152,8	0,428
6	0,6	18,1	10,2	0,029	32	2,0	615,7	188,5	0,528
6	0,8	15,2	13,1	0,037	40	0,8	1158,1	98,5	0,276
6	1,0	12,6	15,7	0,044	40	1,0	1134,1	122,5	0,343
8	0,6	36,3	13,9	0,039	40	1,2	1110,4	146,3	0,409
8	0,8	32,2	18,1	0,051	40	1,6	1063,6	193,0	0,540
8	1,0	28,3	22,0	0,062	40	2,0	1017,9	238,8	0,669
10	0,6	60,8	17,7	0,050	50	0,8	1839,8	123,6	0,346
10	0,8	55,4	23,1	0,065	50	1,0	1809,6	153,9	0,431
10	1,0	50,3	28,3	0,079	50	1,6	1720,2	243,3	0,681
10	1,2	45,4	33,2	0,093	50	2,0	1662,0	301,6	0,845
12	0,6	91,6	21,5	0,060	63	0,8	2960,9	156,3	0,438
12	0,8	84,9	28,1	0,079	63	1,0	2922,5	194,8	0,545
12	1,0	78,5	34,6	0,097	63	1,2	2884,3	232,9	0,652
12	1,2	72,4	40,7	0,114	63	1,6	2808,6	308,6	0,864
12	1,6	60,8	52,3	0,146	63	2,0	2734,0	383,3	1,073
16	0,8	162,8	38,2	0,107	63	2,5	2642,1	475,2	1,330
16	1,0	153,9	47,1	0,132	70	0,8	3674,5	173,9	0,487
16	1,6	128,7	72,4	0,203	70	1,0	3631,7	216,8	0,607
20	0,8	265,9	48,2	0,135	70	1,2	3589,1	259,4	0,726
20	1,0	254,5	59,7	0,167	70	1,6	3504,6	343,8	0,963
20	1,2	243,3	70,9	0,198	70	2,0	3421,2	427,3	1,196
20	1,6	221,7	92,5	0,259	80	1,6	4632,5	394,1	1,103
25	0,8	430,0	60,8	0,170	80	2,0	4536,5	490,1	1,372
25	1,0	415,5	75,4	0,211	80	2,5	4417,9	608,7	1,704
25	1,2	401,1	89,7	0,251	100	1,6	7359,4	494,6	1,385
25	1,6	373,2	117,6	0,329	100	2,0	7238,2	615,7	1,724
					100	2,5	7088,2	765,8	2,144

1) For information
2) For information, calculated with a density of 2,8 kg/dm³

4.2 Length

The order shall specify that circular tubes may be supplied in fixed or in random lengths. In the event of a supply of random length the minimum and maximum values for the lengths shall be specified on the order.

5 Tolerances

5.1 Dimensional tolerances

5.1.1 Diameter

See table 2.

Table 2

Dimensions in millimetres

Diameter	Tolerances
$3,2 \leq D \leq 16$	± 0,06
$16 < D \leq 30$	± 0,08
$30 < D \leq 50$	± 0,12
$50 < D \leq 80$	± 0,15
$80 < D \leq 100$	± 0,20

5.1.2 Thickness

See table 3.

Table 3

Thickness mm	Tolerances %
$0,6 \leq a \leq 1$	± 10
$1 < a \leq 2$	± 9
$2 < a \leq 2,5$	± 8

5.1.3 Length

See table 4; only applicable to tubes supplied in fixed lengths

Table 4

Dimensions in millimetres

Length	Tolerances	
	$3,2 \leq D \leq 50$	$50 < D \leq 100$
$\ell \leq 1\,000$	$^{+3}_{0}$	$^{+4}_{0}$
$\ell > 1\,000$	$^{+6}_{0}$	$^{+10}_{0}$

5.2 Geometric tolerances - Straightness

5.2.1 Method of measurement and symbols

See EN 3848.

5.2.2 Tolerances

See table 5.

Table 5

Dimensions in millimetres

Diameter	Straightness deviation Y_2 on any length X_2 1)
$6 \leq D \leq 100$	$\leq 1{,}7$
1) $X_2 = 1\ 000$	