SLOVENSKI STANDARD
SIST EN 6081:2023

01-marec-2023

Nadomešča:
SIST EN 6081:2016

Aeronavtika - Kovice, univerzalna glava, ozka toleranca - Palčne mere

Aerospace series - Rivet, universal head, close tolerance - Inch series

Luft- und Raumfahrt - Vollniet, Universalkopf, enge Toleranz - Inch-Reihe

Série aérospatiale - Rivets de précision, tête universelle - Série en inches

Ta slovenski standard je istoveten z: **EN 6081:2022**

ICS:

21.060.40	Kovice	Rivets
49.030.60	Kovice	Rivets

SIST EN 6081:2023 **en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 6081

December 2022

ICS 49.030.60

Supersedes EN 6081:2016

English Version

Aerospace series - Rivet, universal head, close tolerance - Inch series

Série aérospatiale - Rivets de précision, tête universelle - Série en inches

Luft- und Raumfahrt - Vollniet, Universalkopf, enge Toleranz - Inch-Reihe

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 6081:2022) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, 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of an identical text or by endorsement, at the latest by June 2023, and conflicting national standards shall be withdrawn at the latest by June 2023.

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Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

Introduction

This document is published at Airbus agreed version prEN 6081 edition P3. Former issue 1 and 2 and drafts may exist of Airbus development only but without any ASD–STAN official publication. In consequence configuration management discrepancies with these unofficial documents are under Airbus responsibility.

1 Scope

This document specifies the dimensions, tolerances and mass of rivets with universal head, close tolerance, inch series, for aerospace application.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2114, *Aerospace series — Aluminium 1050A-H14 — Wire for solid rivets — D ≤ 10 mm*

EN 2115, *Aerospace series — Aluminium alloy 2117-T42 — Wire for solid rivets — D ≤ 10 mm*

EN 2116, *Aerospace series — Aluminium alloy 2017A-T42 — Wire for solid rivets — D ≤ 10 mm*

EN 2117, *Aerospace series — Aluminium alloy AL-P5056A (5056A)-H32 — Wire for solid rivets — D ≤ 10 mm*

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

EN 3115, *Aerospace series — Aluminium alloy 7050-T73 — Wire for solid rivets — D ≤ 10 mm*

prEN 6104, *Aerospace series — Rivets, solid, in aluminium or aluminium alloy — Inch series — Technical specification*[1]

prEN 6118, *Aerospace series — Process specification — Aluminium base protection for fasteners*[1]

ISO 8080, *Aerospace — Anodic treatment of titanium and titanium alloys — Sulfuric acid process*

MIL-A-8625, *Anodic Coatings for Aluminum and Aluminum Alloys*[2]

MIL-DTL-5541, *Chemical Conversion Coatings on Aluminium and Aluminium Alloys*[2]

NASM5674, *Rivets, Structural, Aluminium Alloy, Titanium Columbium Alloy, General Specification for*[3]

SAE AMS 4982, *Titanium Alloy Wire 44.5 Cb*[4]

[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).

[2] Published by: Department of Defense (DoD), the Pentagon, Washington, D.C., 20307, USA.

[3] Published by: Aerospace Industries Association of America, Inc. (AIA), 1250 Eye Street, N.W., Washington, D.C. 20005-3924, USA.

[4] Published by: Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001, USA.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

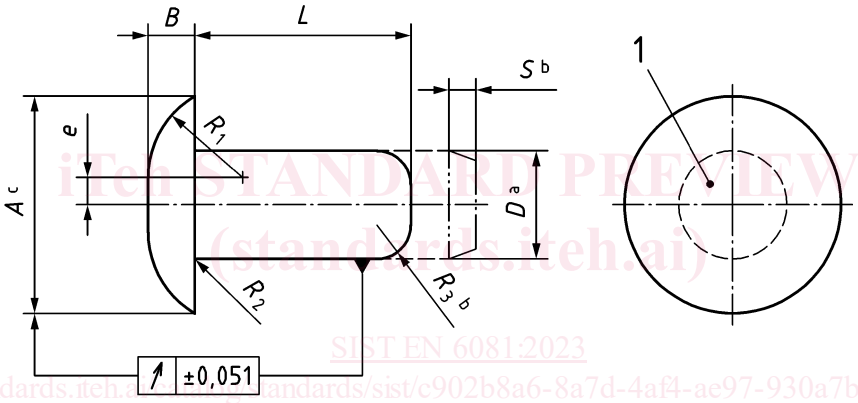
4 Requirements

4.1 Configuration, dimensions, tolerances and masses

The configuration shall be according to Figure 1.

The dimensions, tolerances and mass shall be according to Figure 1 and Table 1, Table 2, and Table 3.

Dimensions and tolerances are expressed in millimetres.



Key

1 Marking (see Clause 6)

a 0,025 mm shank diameter increase is permissible within 2,54 mm of the base of the head

b Chamfered ends with radius to the R_3 dimensions or a 20° chamfer to "*S*" dimension

c Maximum head diameters are to theoretical sharp corners as measured by projection

Figure 1 — Configuration

Table 1 — Dimensions and tolerances

Diameter code	*D* Nominal diameter ±0,03	*A* max.	*A* min.	*B* +0,25 0	*e* Ref.	R_1	R_2	R_3 ±0,25	*S* ±0,25
2	1,58	3,35	3,05	0,7	0,4	1,4	0,1 to 0,15	0,48	0,41
3	2,38	4,95	4,65	1,0	0,6	2,1		0,74	0,58
4	3,18	6,58	6,22	1,4	0,8	2,7		0,99	0,79
5	3,97	8,18	7,82	1,7	1,0	3,4		1,24	0,99
6	4,76	9,78	9,42	2,0	1,2	4,2		1,50	1,19
7	5,56	11,41	10,99	2,4	1,4	4,9		1,75	1,37
8	6,36	13,01	12,59	2,7	1,6	5,5		1,98	1,57
10	7,93	16,21	15,79	3,4	2,0	6,9		2,49	1,98
12	9,53	18,60	18,11	4,1	2,4	8,3		2,97	2,39

Table 2 — Dimensions and tolerances for oversize rivets

Diameter code	*D* Nominal diameter ±0,03	*A* max.	*A* min.	*B* +0,05 0	*e*	R_1 Ref.	R_2	R_3 ±0,25	*S* ±0,25
3X	2,78	4,95	4,65	1,0	0,6	2,1	0,1 to 0,15	0,74	058
4X	3,58	6,58	6,22	1,4	0,8	2,7		0,99	0,79
5X	4,37	8,18	7,82	1,7	1,0	3,4		1,24	0,99
6X	5,16	9,78	9,42	2,0	1,2	4,2		1,50	1,19
6Y	5,56	9,78	9,42	2,0	1,2	4,2		1,50	1,19
7X	5,96	11,41	10,99	2,4	1,4	4,9		1,75	1,37

Table 3 — Length code and masses

Length[a, b]		Diameter code								
		2	3 3X	4 4X	5 5X	6 6X 6Y[c]	7 7X	8	10	12
Code	$L \pm 0{,}25$	Mass[d] kg/1 000 parts								
03	4,76	0,04	0,08	0,15	—	—	—	—	—	—
04	6,35	0,04	0,10	0,19	0,31	—	—	—	—	—
05	7,94	0,05	0,12	0,22	0,37	0,54	0,96	—	—	—
06	9,53	0,06	0,14	0,26	0,42	0,62	1,07	1,45	—	—
07	11,11	0,07	0,16	0,29	0,48	0,70	1,18	1,59	2,19	—
08	12,70	0,08	0,18	0,33	0,53	0,78	1,29	1,74	2,41	3,67
09	14,29	0,09	0,20	0,37	0,59	0,86	1,39	1,88	2,63	3,99
10	15,88	0,10	0,22	0,40	0,65	0,94	1,50	2,02	2,85	4,31
12	19,05	0,12	0,26	0,47	0,76	1,10	1,72	2,31	3,29	4,95
14	22,23	0,14	0,30	0,55	0,87	1,26	1,94	2,59	3,73	5,59
16	25,40	0,16	0,34	0,62	0,98	1,42	2,16	2,87	4,17	6,23
18	28,58	—	—	0,69	1,09	1,58	2,37	3,16	4,61	6,87
20	31,75	—	—	0,72	1,15	1,66	2,48	3,30	4,83	7,19
22	34,93	—	—	0,76	1,20	1,74	2,59	3,44	5,05	7,51
24	38,10	—	—	0,80	1,26	1,82	2,70	3,58	5,27	7,83
28	44,45	—	—	—	1,31	1,90	2,81	3,73	5,50	8,15
32	50,80	—	—	—	1,37	1,98	2,92	3,87	5,72	8,47
40	63,50	—	—	—	—	—	3,03	4,01	5,94	8,79
48	76,20	—	—	—	—	—	—	4,15	6,16	9,11

[a] Length missing in table can be created in 1/16 inch (1,59 mm) steps, e.g. length code 19 corresponds to: 19/16 inch (30,16 mm).

[b] 1/32 inch (0,79 mm) length increments may be obtained by adding code 5 after the last digit of part number, e.g. length code 06–5 corresponds to: 6/16 inch (9,53 mm) + 1/32 inch (0,79 mm) = 13/32 inch (10,32 mm).

[c] Not for new design.

[d] Mass based on aluminium alloy with a density of 2,79 kg/dm^3, refer to Table 4 for conversion factors.

4.2 Material and surface treatment

Material and surface treatment shall be according to Table 4.