



SLOVENSKI STANDARD

oSIST prEN 6081:2019

01-januar-2019

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

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

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

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

Ta slovenski standard je istoveten z: **prEN 6081**

[ksIST FprEN 6081:2021](https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4af4-ac97-930a7bccbee8/ksist-fpren-6081-2021)

<https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4af4-ac97-930a7bccbee8/ksist-fpren-6081-2021>

ICS:

49.030.60 Kovice Rivets

oSIST prEN 6081:2019 **en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[kSIST FprEN 6081:2021](#)

<https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4af4-ae97-930a7bccbee8/ksist-fpren-6081-2021>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 6081

October 2018

ICS 49.030.60

Will supersede 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 - Zoll-Reihe

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

Contents		Page
European foreword.....		3
Introduction		4
1	Scope.....	5
2	Normative references.....	5
3	Terms and definitions	5
4	Requirements	6
4.1	Configuration, dimensions, tolerances and mass.....	6
4.2	Material and surface treatment	9
5	Designation.....	11
6	Marking.....	11
6.1	Material identification	11
6.2	Manufacturer's identification.....	12
6.3	Identification of oversize rivets.....	12
7	Technical specification.....	12
7.1	Aluminium alloy rivet.....	12
7.2	Titanium alloy rivet.....	13
8	Quality management system.....	13
Annex A (informative) Record of revision.....		14
Bibliography.....		15

Iteh STANDARD PREVIEW
(standards.iteh.ai)

kSIST FprEN 6081:2021

[https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4a14-ac97-](https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4a14-ac97-930a7bcchee8/ksist-fpren-6081-2021)

[930a7bcchee8/ksist-fpren-6081-2021](https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4a14-ac97-930a7bcchee8/ksist-fpren-6081-2021)

European foreword

This document (prEN 6081:2018) 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 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.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 6081:2016.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ksIST FprEN 6081:2021](https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4af4-ae97-930a7bccbee8/ksist-fpren-6081-2021)

<https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4af4-ae97-930a7bccbee8/ksist-fpren-6081-2021>

prEN 6081:2018 (E)**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.

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

[kSIST FprEN 6081:2021](https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4af4-ae97-930a7bccbee8/ksist-fpren-6081-2021)

<https://standards.iteh.ai/catalog/standards/sist/c902b8a6-8a7d-4af4-ae97-930a7bccbee8/ksist-fpren-6081-2021>

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 - $D \leq 10$ mm*¹

EN 2115, *Aerospace series - Aluminium alloy 2117-T42 - Wire for solid rivets - $D \leq 10$ mm*

EN 2116, *Aerospace series - Aluminium alloy 2017A-T42 - Wire for solid rivets - $D \leq 10$ mm*

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

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

EN 3115, *Aerospace series - Aluminium alloy 7050-T73 - Wire for solid rivets - $D \leq 10$ 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*

AMS 4982, *Titanium alloy wire 44.5 Cb*²

MIL-C-5541, *Chemical conversion coatings on aluminium and aluminium alloys*³

NASM 5674, *Rivets, structural, aluminium alloy, titanium columbium alloy, general specification for*⁴

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:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

¹ Under preparation. Published as ASD Prestandard at the date of publication of this standard.

² Published by: Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001, USA.

³ Published by: Department of Defense (DoD), the Pentagon, Washington, D.C., 20307, USA.

⁴ Published by: Aerospace Industries Association of America, Inc. (AIA), 1250 Eye Street, N.W., Washington, D.C. 20005-3924, USA.

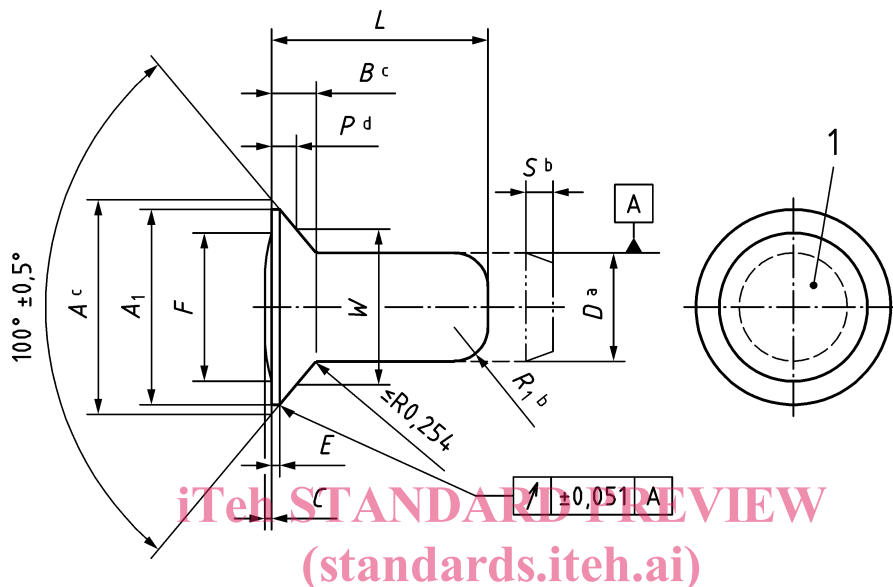
4 Requirements

4.1 Configuration, dimensions, tolerances and mass

The configuration shall conform with Figure 1.

The dimensions, tolerances and mass shall conform with Figure 1 and Table 1, Table 2, and Table 3.

Dimensions and tolerances are expressed in millimetres.



Key

- 1 Marking (see Clause 5)
- 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
- d Measurement method for inspection of head characteristics in accordance with NAS 9800

NOTE Angular misalignment of rivet head to rivet shank axis $0,5^\circ$ max.

Figure 1 — Configuration

Table 1 — Dimensions and tolerances

Diameter code	D Nominal diameter $\pm 0,03$	A		B	e	R ₁	R ₂	R ₃	S
		max.	min.	$\begin{array}{ l} +0,25 \\ 0 \end{array}$	Ref.			$\pm 0,25$	$\pm 0,25$
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	1,2	4,2		1,5	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 $\pm 0,03$	A		B	e	R ₁	R ₂	R ₃	S
		max.	min.	$\begin{array}{ l} +0,25 \\ 0 \end{array}$	Ref.			$\pm 0,25$	$\pm 0,25$
3X	2,78	4,95	4,65	1,0	0,6	2,1	0,1 to 0,15	0,74	0,58
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	1,2	4,2		1,5	1,19
6Y	5,56	9,78	9,42	2	1,2	4,2		1,5	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/dm³, refer to Table 4 for conversion factors.