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Page 1 of 4
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Rivet – Titanium alloy 100° flush head

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1 Scope

This standard specifies the dimensions, tolerances of titanium–columbium alloy rivet. These 100° flush head dimensions are in accordance with MS20426.

2 Normative references

AMS4982	Titanium alloy wire 44.5Cb
A/DET0012	Process Specification – Aluminium base protection for fastener
EN2424	Marking of aerospace products
ISO8080	Aerospace, anodic treatment of titanium and titanium alloys
MIL–R–5674	Procurement specification for titanium–columbium rivet
MS20426	Rivet, solid, countersunk 100°, precision head

3 Requirements

3.1 Configuration – Dimensions – Tolerances – Mass

The configuration shall conform with figure 1.
The dimensions, tolerances and mass shall conform with figures 1 and 2 and tables 1 and 2

3.2 Material

Titanium–columbium alloy 45Cb per AMS4982. Heat treat; annealed to produce 50 ksi (345 N/mm^2) per AMS4982.

3.3 Surface treatment

anodized per ISO8080, code "no code"
IVD coating per A/DET0012, code "A"

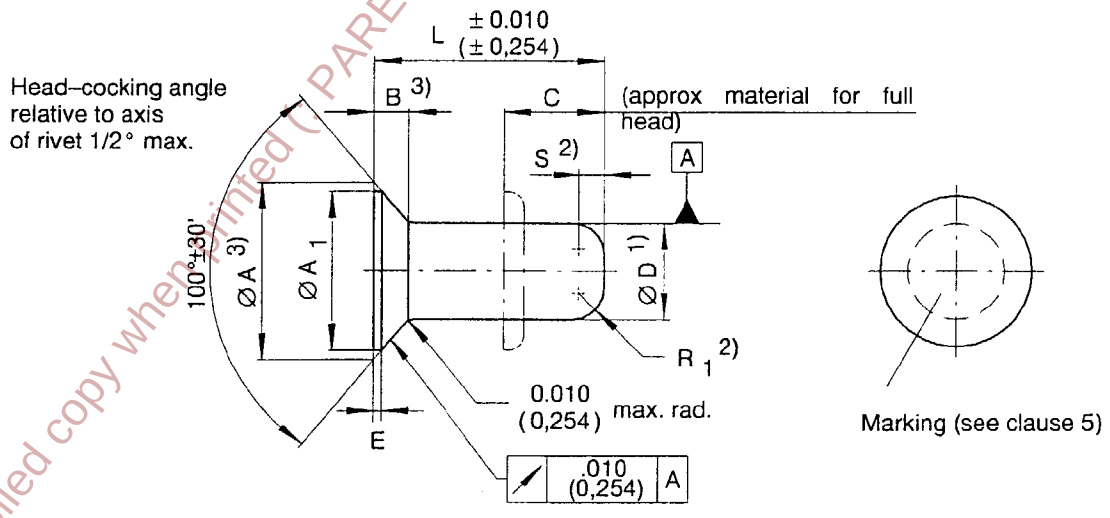


Figure 1: Configuration

1) .001 (0,025) shank diameter increase is permissible within .10 (2,54) of the base of the head.
2) Chamfered ends with a radius to the R_1 dimensions or a 20° chamfer to the "S" dimension.
3) Maximum head diameters are to theoretical sharp corners as measured by projection.

Table 1 [1]

Dimensions in inches (mm)

Dia dash–no. [2]		–3	–4	–5
D = Nominal dia	+.003 −.001 / (+0,076) (−0,025)	.094 (2,388)	.125 (3,175)	.156 (3,962)
A	±.004 (±0,102)	.179 (4,547)	.225 (5,715)	.286 (7,264)
A_1	min.	.165 (4,191)	.207 (5,258)	.263 (6,68)
B	Ref.	.036 (0,914)	.042 (1,067)	.055 (1,397)
E	max.	.006 (0,152)	.007 (0,178)	.007 (0,178)
R_1	± .010 (±0,254)	.029 (0,737)	.039 (0,991)	.049 (1,244)
C	max.	.141 (3,581)	.188 (4,775)	.234 (5,943)
S	±.010 (±0,254)	.023 (0,584)	.031 (0,787)	.039 (0,991)

1) All dimensions apply before application of lubrication
2) Dash–no. indicates nom. dia in 1/32 inch increments

Table 2

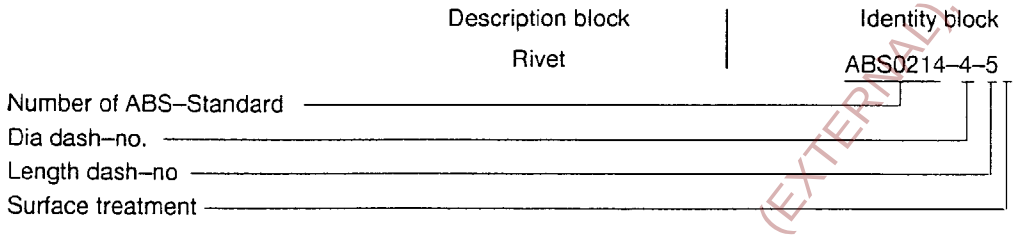
Dimensions in inches (mm)

Length dash–no. [1]	Dia dash–no. –3		–4		–5	
	L ±.010 (±0,254)	Mass lbs/1000pcs (kg/1000pcs)	L ±.010 (±0,254)	Mass lbs/1000pcs (kg/1000pcs)	L ±.010 (±0,254)	Mass lbs/1000pcs (kg/1000pcs)
–2	.125 (3,175)	.248 (0,112)	–	–	–	–
–3	.188 (4,763)	.339 (0,154)	.188 (4,763)	.598 (0,271)	.188 (4,763)	.950 (0,431)
–4	.250 (6,35)	.439 (0,195)	.250 (6,35)	.760 (0,345)	.250 (6,35)	1.203 (0,546)
–5	.313 (7,938)	.521 (0,236)	.313 (7,938)	.922 (0,418)	.313 (7,938)	1.456 (0,660)
–6	.375 (9,525)	.612 (0,278)	.375 (9,525)	1.084 (0,492)	.375 (9,525)	1.709 (0,775)
–7	.438 (11,113)	.703 (0,313)	.438 (11,113)	1.246 (0,565)	.438 (11,113)	1.962 (0,890)
–8	.500 (12,700)	.799 (0,362)	.500 (12,700)	1.408 (0,639)	.500 (12,700)	2.215 (1,005)
–9	.563 (14,288)	.891 (0,404)	.563 (14,288)	1.570 (0,712)	.563 (14,288)	2.468 (1,119)

1) Dash–no. indicates length in 1/16 inch increments

4 Designation

Example :



5 Marking

5.1 Material identification

Symbol on the head in accordance with figure 2.

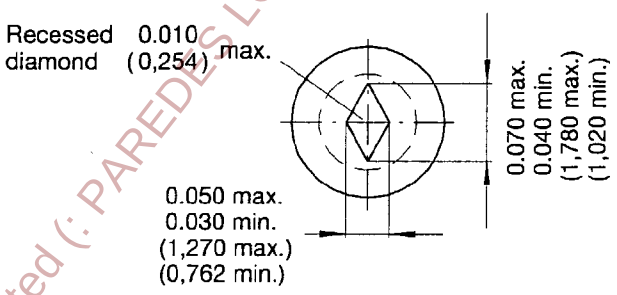


Figure 2

5.2 Manufacturer's identification

EN2424 F to be depressed on rivet heads with a shank diameter .125 (3,175) and larger.

6 Technical specification

The rivets shall conform to the requirements of MIL–R–5674 except for the finish as stated.