### **ABS0218**

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# Rivet-titanium alloy 100° reduced flush head-50 ksi <sub>fsu</sub> Shear version

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# 1 Scope

This standard specifies the dimensions, tolerances of titanium-columbium rivet.

### 2 Normative References

AMS4982 Titanium alloy bars and forgings, 55TI-CB

EN2424 Marking of aerospace products

ISO8080 Aerospace, anodic treatment of titanium and titanium alloys MIL-R-5674 Procurement specification for titanium-columbium rivet

### 3 Requirements

# 3.1 Configuration – Dimensions – Tolerances – Mass

Configuration shall be accordance with the figure.

Dimensions, tolerances and mass shall conform with the figure 1 and 2 and the table 1 and 2

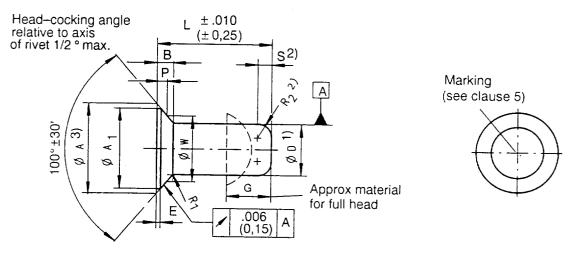


Figure 1 - Configuration

- 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<sub>1</sub> 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 (millimetres)

Dia dash-	no. <sup>2)</sup>	-3	-4	- 5
D = Nominal dia	+.003 001	.094	.125	.156 (3,962)
o - Normal dia	( +0,080 ) ( -0,025 )	(2,388)	(3,175)	
A (theor.)	±.004 ( ±0,102)	.144 (3,656)	.192 (4,877)	.243 (6,172)
A <sub>1</sub>	min.	.126 (3,200)	.174 ( 4,420 )	.225 ( 5,715 )
В	Ref.	.021 ( 0,533 )	.028	.037 ( 0,940 )
G	Ref.	.141 (3,581)	.188 ( 4,775 )	.234 ( 5,943 )
(continued)				<u>'</u>

Table 1 1) (concluded)

Dimensions in inches (millimetres)

Dia	dash-no. <sup>2)</sup>	-3	-4	-5
P	min.	.0089 ( 0,226 )	.0106 ( 0,269 )	.0153 ( 0,389 )
	max.	.0123 ( 0,312 )	.0141 (0,358)	.0189 ( 0,480 )
R <sub>1</sub>	max.	.010 ( 0,254 )	.010 ( 0,254 )	.010 ( 0,254 )
R <sub>2</sub>	±.010 ( ±0,254)	.029 (0,737)	.039 (0,991)	.049 (1,244)
S	±.010 ( ±0,254)	.023 ( 0,584 )	.031 ( 0,787 )	.039 ( 0,991 )
E	max.	.006 ( 0,152 )	.006 ( 0,152 )	.006 (0,152)
W	+.0002 ( +0,01)	.119 (3,023)	.163 (4,140)	.203 (5,156)
<ol> <li>All dimensions apply before application of lubrication</li> <li>Dash-no. indicates nom. dia in 1/32 inch increments</li> </ol>				

Length	Dimensions in inches (millimetres)  Dia dash-no.						
dash-no. 1)		<b>–3</b>		-4		-5	
	L	Mass lbs/1000pcs ( kg/1000pcs )	L	Mass lbs/1000pcs ( kg/1000pcs )	L	Mass lbs/1000pcs ( kg/1000pcs	
	±.010		±.010		±.010		
	(±0,254)	!	(±0,254)	:	(±0,254)		
-2	.125 (3,175)	.207 ( 0,094 )	_	<del>_</del>	_	_	
-3	.188 ( 4,763 )	.298 ( 0,135 )	.188 ( 4,763 )	.536 ( 0,243 )	.188 (4,763)	.865 (0,392)	
-4	.250 ( 6,35 )	.389 ( 0,176 )	.250 ( 6,35 )	.699 ( 0,317 )	.250 (6,35)	1.118 (0,507)	
5	.313 ( 7,938 )	.480 ( 0,218 )	.313 ( 7,938 )	.862 ( 0,391 )	.313 (7,938)	1.371 (0,622)	
<b>–</b> 6	.375 ( 9,525 )	.571 ( 0,259 )	.375 ( 9,525 )	1.025 ( 0,465 )	.375 (9,525)	1.624	
-7	.438 (11,113)	.662 ( 0,299 )	.438 ( 11,113 )	1.188 ( 0,539 )	.438 (11,113)	1.877 (0,851)	
-8	.500 (12,700)	1.412 ( 0,640 )	.500 ( 12,700 )	1.351 (0,613)	.500 ( 12,700 )	2.130 (0,966)	
-9	.563 ( 14,288 )	1.574 ( 0,714 )	.563 ( 14,288 )	1.514 ( 0,687 )	.563 ( 14,288 )	2.383	
-10	.625 ( 15,875 )	1.739 ( 0,789 )	.625 ( 15,875 )	1.845 ( 0,837 )	.625 ( 15,875 )	2.636 (1,195)	

Table 2

#### 3.2 Material

Titanium-columbium alloy 45CB per AMS4982. Heat treat; anneald per AMS4982

### 3.3 Surface treatment

Finish; anodized per ISO8080

### 4 Designation

Example:

	Description block		Identity block	
	RIVET	İ	ABS0218-4-5	
Number of ABS-Standard — Dia dash-no. ————————————————————————————————————				
Length dash-no.				

# 5 Marking

#### 5.1 Material identification

Symbol on the head in accordance with figure 2

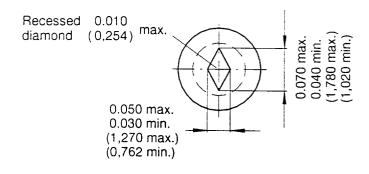


Figure 2

#### 5.2 Manufacturer's identification

EN2424F 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