

1. Introduction.

1.1 Scope. This standard establishes the dimensional, mechanical and performance requirements for structural splitting self-plugging pull mandrel blind rivets suitable for use in engineering assemblies where load transmitting capability by the rivet is a design requirement.

1.2 Definitions.

1.2.1 Blind Rivet. A blind rivet is a blind fastener which has a self-contained mechanical or other feature which permits the formation of an upset on the blind end of the rivet during rivet setting to join the component parts of an assembly.

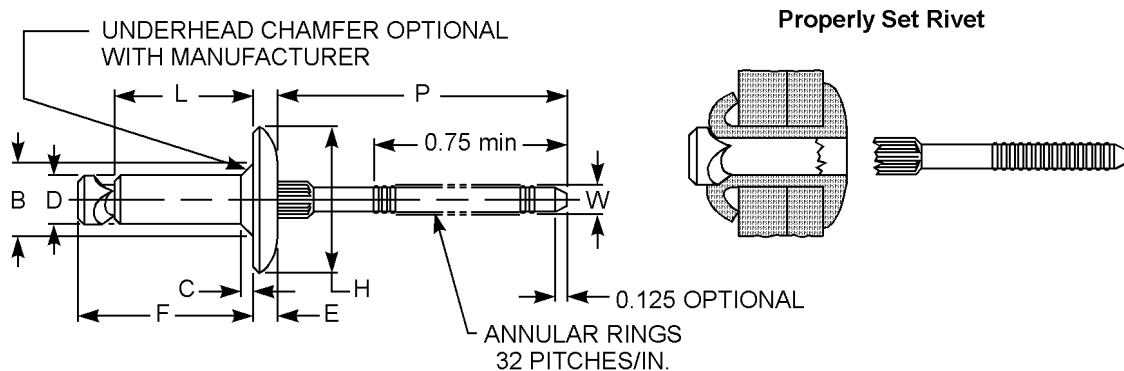


Table 1 Dimensions of Regular and Large Head Structural Splitting Self-Plugging Pull Mandrel Blind Rivets

Rivet Series No.	Nom Rivet Size	D		H		E		H		E		B	C	W	P	F	L
		Body Dia		Style 1 — Regular Head				Style 2 — Large Head				Hole Filling Chamfer	Chamfer Length	Mandrel Dia	Mandrel Protrusion	Blind Side Protrusion	Rivet Body Length
				Head Dia		Head Height		Head Dia		Head Height							
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Max	Nom	Min
6	3/16 0.1875	0.191	0.185	0.405	0.375	0.103	0.083	0.587	0.537	0.103	0.083	0.201	0.035	0.116	1.000	L + 0.125	See Table 2
8	1/4 0.2500	0.255	0.248	0.535	0.485	0.126	0.106	0.775	0.725	0.126	0.106	0.269	0.045	0.151	1.000	L + 0.165	

NOTES:

- All dimensions are in inches.
- For application data, see Table 2.
- Maximum body diameter may be increased by 0.001 inch within 0.100 inch of underside of head.
- When computing the blind side protrusion (F), the maximum length of rivet body (L) as given in Table 2 for the applicable grip shall be used. Minimum blind side clearance may be calculated by subtracting the actual grip (G) (i.e., total thickness of the material to be joined), from the specified blind side protrusion (F). (Example: To join two plates, each 0.100 inch thick, with a 3/16 inch rivet, a No. 64 rivet would be used. Minimum blind side clearance necessary to permit proper rivet setting would be $L + 0.125 - G$, which is $0.602 + 0.125 - 0.200$, and equals 0.527 inch.)

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1.2.2 A structural splitting self-plugging pull mandrel blind rivet (hereinafter called rivet) is a two piece assembly consisting of a rivet body and a mandrel. During the setting operation the mandrel is pulled against and into the rivet body causing the rivet blind end to split axially into three or more segments. The mandrel breaks at a point within or above the rivet head with the entrapped length of the mandrel being retained in the rivet body.

1.2.3 Definitions of other terms used in this standard are given in IFI-110, *Glossary of Terms Relating to Blind Rivets*.

Table 2 Application Data for Dome Head Style Structural Splitting Self-Plugging Pull Mandrel Blind Rivets

Rivet Series No.	Nom Rivet Size	Recommended Drill Size	Recommended Hole Size		Rivet No.	Grip Range	Rivet Body Length L
			Max	Min			Max
6	3/16 0.1875	#11	0.196	0.192	61	0.032 – 0.062	0.415
					62	0.063 – 0.125	0.477
					63	0.126 – 0.187	0.540
					64	0.188 – 0.250	0.602
					65	0.251 – 0.312	0.665
					66	0.313 – 0.375	0.727
					67	0.376 – 0.437	0.790
					68	0.438 – 0.500	0.852
					69	0.501 – 0.562	0.915
					610	0.563 – 0.625	0.977
					611	0.626 – 0.687	1.040
					612	0.688 – 0.750	1.102
8	1/4 0.2500	F	0.261	0.257	82	0.063 – 0.125	0.520
					83	0.126 – 0.187	0.582
					84	0.188 – 0.250	0.645
					85	0.251 – 0.312	0.707
					86	0.313 – 0.375	0.770
					87	0.376 – 0.437	0.832
					88	0.438 – 0.500	0.895
					89	0.501 – 0.562	0.957
					810	0.563 – 0.625	1.020
					811	0.626 – 0.687	1.082
					812	0.688 – 0.750	1.145
					813	0.751 – 0.812	1.207
					814	0.813 – 0.875	1.270
					815	0.876 – 0.937	1.332
					816	0.938 – 1.000	1.395

NOTES:

1. All dimensions are in inches.
2. Recommended drill sizes are those which normally produce holes within the specified hole size limits.

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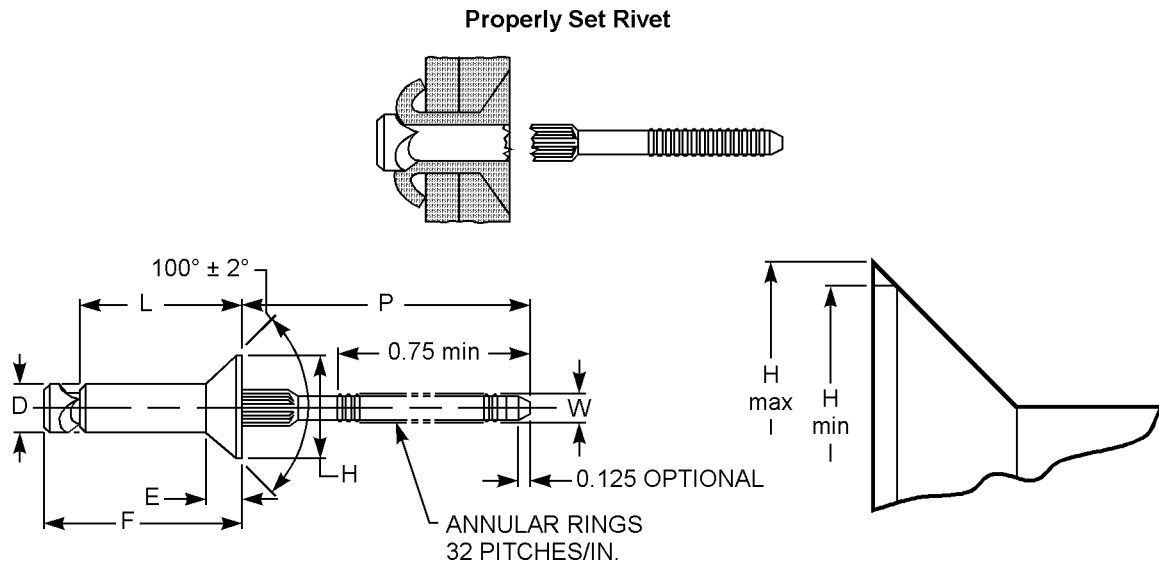


Table 3 Dimensions of 100 Deg Countersunk Head Structural Splitting Self-Plugging Pull Mandrel Blind Rivets

Rivet Series No.	Nom Rivet Size	D		H		E	W	P	F	L
		Body Diameter		Head Diameter		Head Height	Mandrel Dia	Mandrel Protrusion	Blind Side Protrusion	Rivet Body Length
		Max	Min	Max	Min	Ref	Nom	Min	Max	
6	3/16 0.1875	0.191	0.185	0.391	0.361	0.081	0.116	1.000	L + 0.125	See Table 4
8	1/4 0.2500	0.255	0.248	0.512	0.482	0.104	0.151	1.000	L + 0.165	

NOTES:

1. All dimensions are in inches.
2. For application data, see Table 4.
3. Maximum body diameter may be increased by 0.001 inch within 0.100 inch of underside of head.
4. When computing the blind side protrusion (F), the maximum length of rivet body (L) as given in Table 4 for the applicable grip shall be used. Minimum blind side clearance may be calculated by subtracting the actual grip (G) (i.e., total thickness of the material to be joined), from the specified blind side protrusion (F). (Example: To join two plates, each 0.180 inch thick, with a 3/16 inch rivet, a No. 66 rivet would be used. Minimum blind side clearance necessary to permit proper rivet setting would be L + 0.125 – G, which is 0.727 + 0.125 – 0.360 and equals 0.492 inch.)

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