

1. Introduction.

1.1 Scope. This standard establishes the dimensional, mechanical, and performance requirements for inch series pull through mandrel blind rivets suitable for use in engineering assemblies where load transmitting capability by the rivet is a design requirement. A metric series counterpart standard is in existence under designation IFI-520.

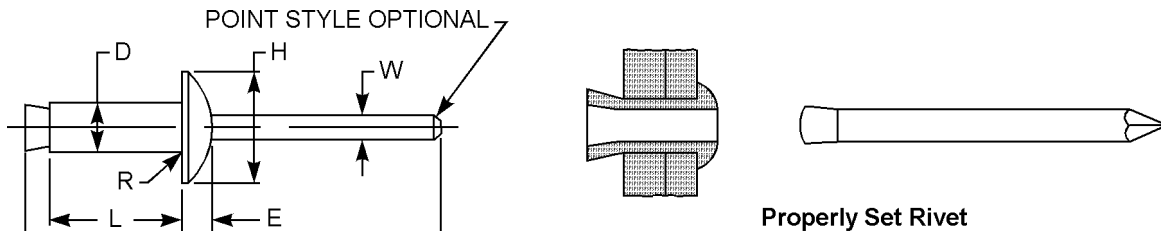


Table 1 Dimensions of Regular and Large Dome Head Pull Through Mandrel Blind Rivets

Rivet Series No.	Nom Rivet Size	D		H		E	H		E	R	W	P	F	L
		Body Dia		Style 1 Regular Head			Style 2 Large Head			Radius of Fillet	Mandrel Dia	Mandrel Protru-sion	Blind Side Protru-sion	Rivet Body Length
				Head Dia		Head Height	Head Dia		Head Height					
		Max	Min	Max	Min	Max	Max	Min	Max	Max	Max	Nom	Min	Max
4	1/8 0.1250	0.128	0.122	0.262	0.238	0.064	0.390	0.360	0.065	0.025	0.085	1.00	L + .093	See Table 2
5	5/32 0.1562	0.159	0.153	0.328	0.296	0.077	0.488	0.448	0.075	0.025	0.107	1.00	L + .125	
6	3/16 0.1875	0.190	0.184	0.394	0.356	0.090	0.650	0.600	0.092	0.030	0.126	1.00	L + .141	
8	1/4 0.2500	0.253	0.247	0.525	0.475	0.117	0.780	0.720	0.107	0.035	0.169	1.00	L + .156	
See Notes		3, 4								5				6

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.
- Maximum body diameter of Grade 30 rivets may be increased by 0.001 inch when rivets are plated or coated.
- For Grade 40 rivets, the maximum fillet radius for 3/16 inch rivets may be 0.035 inch, and for 1/4 inch rivets may be 0.060 inch.
- 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 .100 inch thick, with a 5/32 inch rivet, a No. 54 rivet would be used. Minimum blind side clearance necessary to permit proper rivet setting would be $L + .125 - G$, which is $.380 + .125 - .200$, and equals .305 inch.)

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Table 2 Application Data for Dome Head Pull Through Mandrel Blind Rivets

Rivet Series No.	Nom Rivet Size	Recommended Drill Size	Recommended Hole Size		Rivet No.	Recommended Grip Range	Rivet Body Length L
			Max	Min			Max
4	1/8 0.1250	#30	0.133	0.129	41	To .062	0.170
					42	.063 – .125	0.232
					43	.126 – .187	0.295
					44	.188 – .250	0.357
					45	.251 – .312	0.420
					46	.313 – .375	0.482
					47	.376 – .437	0.545
					48	.438 – .500	0.607
					49	.501 – .562	0.670
					410	.563 – .625	0.732
5	5/32 0.1562	#20	0.164	0.160	51	To .062	0.192
					52	.063 – .125	0.255
					53	.126 – .187	0.317
					54	.188 – .250	0.380
					55	.251 – .312	0.442
					56	.313 – .375	0.505
					57	.376 – .437	0.567
					58	.438 – .500	0.630
					59	.501 – .562	0.692
					510	.563 – .625	0.755
6	3/16 0.1875	#11	0.196	0.192	61	To .062	0.215
					62	.063 – .125	0.277
					63	.126 – .187	0.340
					64	.188 – .250	0.402
					65	.251 – .312	0.465
					66	.313 – .375	0.527
					67	.376 – .437	0.590
					68	.438 – .500	0.652
					69	.501 – .562	0.715
					610	.563 – .625	0.777
					611	.626 – .687	0.840
					612	.688 – .750	0.902
					613	.751 – .812	0.965
					614	.813 – .875	1.027
					615	.876 – .937	1.090
					616	.938 – 1.000	1.152
8	1/4 0.2500	F	0.261	0.257	82	.063 – .125	0.322
					83	.126 – .187	0.385
					84	.188 – .250	0.447
					85	.251 – .312	0.510
					86	.313 – .375	0.572
					87	.376 – .437	0.635
					88	.438 – .500	0.697
					89	.501 – .562	0.760
					810	.563 – .625	0.822
					811	.626 – .687	0.885
					812	.688 – .750	0.947
					813	.751 – .812	1.010
					814	.813 – .875	1.072
					See Notes		2

NOTES:

1. All dimensions are in inches.
2. Recommended drill sizes are those which normally produce holes within the specified hole size limits.
3. If economically feasible, and if blind side clearances permit, rivets with lengths longer than those recommended for a given grip may be substituted. In this way, the number of different inventory items may be reduced.

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