

1. Scope

1.1 Scope. This standard establishes the dimensional, mechanical, and performance requirements of metric pull through 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, chemical or other feature which permits the formation of an upset on the blind end of the rivet and expansion of the rivet shank during rivet setting to join the component parts of an assembly.

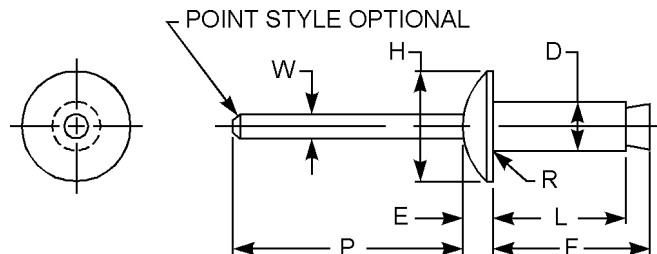


Table 1 Dimensions of Regular and Large Protruding Head Pull Through Mandrel Blind Rivets

Rivet Series No.	Nom Rivet Size	D		H		E	H		E	R	W	P	F	
		Body Dia		Style 1 — Regular Head			Style 2 — Large Head			Radius of Fillet	Mandrel Dia	Mandrel Protru-sion	Blind Side Protru-sion	
				Head Dia		Head Height	Head Dia		Head Height					
		Max	Min	Max	Min	Max	Max	Min	Max	Max	Min	Max	Max	Nom
4	3.2	3.25	3.10	6.65	6.05	1.63	9.91	9.14	1.65	0.7	2.16	19	L + 2.4	
5	4.0	4.04	3.89	8.33	7.52	1.96	12.40	11.38	1.90	0.7	2.72	19	L + 3.2	
6	4.8	4.83	4.67	10.01	9.04	2.29	16.51	15.24	2.34	0.8	3.20	19	L + 3.6	
8	6.3	6.43	6.27	13.33	12.07	2.97	19.81	18.29	2.72	0.9	4.29	19	L + 4.0	
See Notes		3, 4								5			6	

NOTES:

- All dimensions are in millimeters.
- For application data see Table 2.
- Maximum body diameter may be increased by 0.03 mm within 2.5 mm of underside of head.
- Maximum body diameter of Grade 30 rivets may be increased by 0.03 mm when rivets are plated or coated.
- For Grade 40 rivets, the maximum fillet radius for No. 6 rivets may be 0.9 mm, and for No. 8 rivets may be 1.5 mm.
- When computing the blind side protrusion (F), the maximum length of rivet (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 2.5 mm thick, with a No. 5 rivet, a No. 54 rivet would be used. Minimum blind side clearance necessary to permit proper rivet setting would be $L + 3.2 - G$, which is $9.7 + 3.2 - 5.0$, and equals 7.9 mm).

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

Rivet Series No.	Nom Rivet Size	Recom- mended Metric Drill Size	Recommended Hole Size		Rivet No.	Grip Range	Rivet Length L
			Max	Min			Max
4	3.2	3.3	3.38	3.28	41	to 1.6	4.4
					42	1.7 to 3.2	5.9
					43	3.3 to 4.8	7.5
					44	4.9 to 6.4	9.1
					45	6.5 to 7.9	10.7
					46	8.0 to 9.5	12.3
					47	9.6 to 11.1	13.9
					48	11.2 to 12.7	15.5
					49	12.8 to 14.3	17.0
					410	14.4 to 15.9	18.6
5	4.0	4.1	4.16	4.06	51	to 1.6	4.9
					52	1.7 to 3.2	6.5
					53	3.3 to 4.8	8.1
					54	4.9 to 6.4	9.7
					55	6.5 to 7.9	11.3
					56	8.0 to 9.5	12.9
					57	9.6 to 11.1	14.4
					58	11.2 to 12.7	16.0
					59	12.8 to 14.3	17.6
					510	14.4 to 15.9	19.2
6	4.8	4.9	4.98	4.88	61	to 1.6	5.5
					62	1.7 to 3.2	7.1
					63	3.3 to 4.8	8.7
					64	4.9 to 6.4	10.2
					65	6.5 to 7.9	11.8
					66	8.0 to 9.5	13.4
					67	9.6 to 11.1	15.0
					68	11.2 to 12.7	16.6
					69	12.8 to 14.3	18.2
					610	14.4 to 15.9	19.4
					611	16.0 to 17.5	21.4
					612	17.6 to 19.1	22.9
					613	19.2 to 20.6	24.5
					614	20.7 to 22.2	26.1
615	22.3 to 23.8	27.7					
616	23.9 to 25.4	29.3					
8	6.3	6.5	6.63	6.53	82	1.6 to 3.2	8.2
					83	3.3 to 4.8	9.8
					84	4.9 to 6.4	11.4
					85	6.5 to 7.9	13.0
					86	8.0 to 9.5	14.6
					87	9.6 to 11.1	16.2
					88	11.2 to 12.7	17.7
					89	12.8 to 14.3	19.3
					810	14.4 to 15.9	20.9
					811	16.0 to 17.5	22.5
					812	17.6 to 19.1	24.1
					813	19.2 to 20.6	25.7
					814	20.7 to 22.2	27.3
					See Notes		2

NOTES:

1. All dimensions are in millimeters.
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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