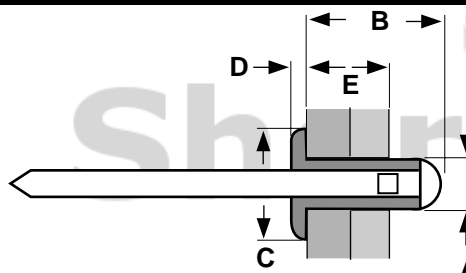


Rivets

Multi-Grip Low-Profile Head Aluminum Blind Rivet/ Steel Mandrel



LOW-PROFILE MULTI-GRIP ALUMINUM BODY/STEEL MANDREL BLIND RIVETS											Avdel*
Part Number	A Rivet Diameter	B Length		C Head Diameter		D Head Height		E Grip Range	Recom- mended Hole Size	Shear Strength Pounds	Tensile Strength Pounds
		Max	Min	Max	Min	Max	Min				
		L-0410	1/8	.410	.350	.262	.243				
L-0412	1/8	.470	.420	.262	.243	.041	.034	.062-.250	.136	165	230
L-0414	1/8	.530	.480	.262	.243	.041	.034	.125-.312	.136	165	230
L-0416	1/8	.590	.540	.262	.243	.041	.034	.187-.375	.136	165	230
L-0512	5/32	.480	.430	.321	.302	.051	.044	.046-.250	.166	255	375
L-0514	5/32	.540	.490	.321	.302	.051	.044	.125-.312	.166	255	375
L-0516	5/32	.610	.550	.321	.302	.051	.044	.156-.375	.166	255	375
L-0613	3/16	.550	.470	.396	.377	.061	.054	.062-.250	.199	350	530
L-0619	3/16	.730	.660	.396	.377	.061	.054	.187-.437	.199	350	530
L-0621	3/16	.780	.720	.396	.377	.061	.054	.250-.500	.199	350	530
L-0631	3/16	1.09	1.03	.396	.377	.061	.054	.500-.781	.199	350	530

Description	An aluminum blind fastener with a self-contained steel mandrel. The multi-grip rivet design differs from a standard blind rivet two ways: (1) a section of the body shank has a slightly reduced outside diameter, and (2) the stem of the mandrel is pinched at a point above the mandrel head. The head of the rivet body is lower and wider than a dome head (approximately twice the diameter of the shank).
Applications/ Advantages	Multi-grip rivets provide maximum clamping action over a full range of material thicknesses while using the same rivet length. This allows flexibility in design, cuts production costs and reduces inventories. Low-Profile heads are usually chosen to improve the product's finished appearance. They should be used when fastening materials with mechanical and physical properties similar to aluminum.
Material	<i>Rivet:</i> Aluminum Alloy 5251 or equivalent alloy. <i>Mandrel:</i> Low carbon steel with a choice of coating: black phosphate or zinc with yellow chromate.
Shear Strength	Rivets shall have ultimate shear loads not less than the minimum ultimate shear loads specified for the applicable size given in the above table.
Tensile Strength	Rivets shall have ultimate tensile loads not less than the minimum ultimate tensile loads specified for the applicable size given in the above table.

PART NUMBER COMPARISON - LOW PROFILE HEAD MULTI-GRIP RIVETS				
Kanebridge- Zinc yellow mandrel	Avdel Avex®- Zinc yellow mandrel	Kanebridge- Black phos mandrel	Avdel Avex® - Black phos mandrel	Pop® - Plain steel mandrel
L-0410Y	1691-0410	L-0410B	1661-0410	AD41-43BS
-	1691-0412	L-0412B	1661-0412	-
L-0414Y	1691-0414	L-0414B	1661-0414	AD43-45BS
L-0416Y	1691-0416	L-0416B	1661-0416	-
L-0512Y	1691-0512	L-0512B	1661-0512	AD52-54BS
L-0514Y	1691-0514	L-0514B	1661-0514	-
L-0516Y	1691-0516	-	1661-0516	-
L-0613Y	1691-0613	L-0613B	1661-0613	AD62-64BS
L-0619Y	1691-0619	L-0619B	1661-0619	AD63-66BS
L-0621Y	1691-0621	L-0621B	1661-0621	AD66-68BS
L-0631Y	1691-0631	L-0631B	1661-0631	-

*Avdel Cherry Textron is the original writer of the multi-grip dimensions.