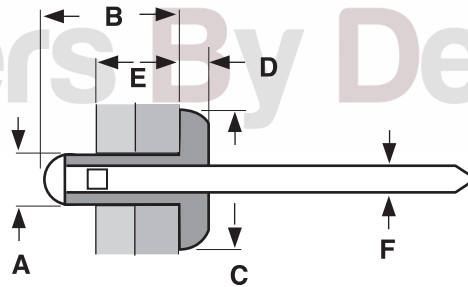


Fasteners By Design Inc.



LARGE FLANGE MULTI-GRIP ALUMINUM BODY / STEEL MANDREL BLIND RIVETS										Avdel	
Part Number	A	B	C	D	E		F	Recommended Hole Size	Shear Strength	Tensile Strength	
	Rivet Diameter	Length	Head Diameter	Head Height	Grip Range		Mandrel Diameter		Pounds	Pounds	
					Max	Max			Max	Max	
X-0410	1/8	.410	.337	.045	.031	.187	.074	.131 - .136	165	230	
X-0414		.530			.125	.312					
X-0416		.590			.187	.375					
X-0514	5/32	.550	.387	.058	.125	.312	.090	.161 - .166	255	375	
X-0613	3/16	.550	.637	.075	.062	.250	.112	.194 - .201	350	530	
X-0621		.790			.250	.500					
X-0631		1.100			.500	.781					

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 Large Flange rivet is approximately 50% wider than the Dome head.
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. The Large Flange style is preferred when the rivet is seated in soft material to prevent it from pulling through. They should be used when fastening materials with mechanical and physical properties similar to aluminum.
Material	<i>Rivet Body:</i> Aluminum Alloy 5251 or equivalent alloy. <i>Mandrel:</i> Low carbon steel
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.

LARGE FLANGE MULTI-GRIP RIVETS PART NUMBER COMPARISON			
ALUMINUM RIVET / STEEL BLACK PHOSPHATE MANDREL		ALUMINUM RIVET / STEEL ZINC MANDREL	
Catalog Part #	Avdel Avex®	Catalog Part #	Avdel Avex®
X-0410B	1641-0410	X-0410Y	1692-0410
X-0613B	1641-0613	X-0414Y	1692-0414
X-0621B	1641-0621	X-0416Y	1692-0416
X-0631B	1641-0631	X-0514Y	1692-0514
		X-0613Y	1692-0613
		X-0621Y	1692-0621
		X-0631Y	1692-0631

*Rivets meet the same dimensions as those published by the manufacturers of the Avdel Cherry Textron® brand.