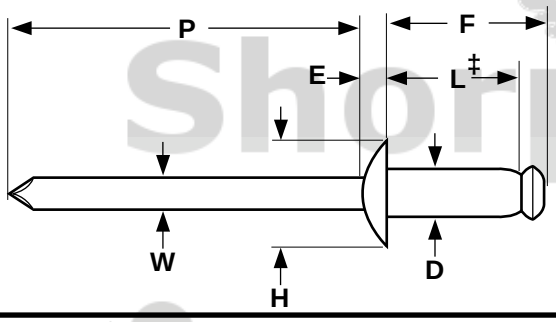
Aluminum Rivet/ Steel Mandrel

Dome Head Blind Rivet



ALUMINUM BODY/STEEL MANDREL DOME HEAD BREAK-STEM BLIND RIVETS — **SAE J-1200**

Nominal Rivet Diameter	D		H		E	W	P	F	Ultimate Shear Load	Ultimate Tensile Load	Mandrel Break Load	
	Rivet Shank Diameter		Head Diameter		Head Height	Mandrel Diameter	Mandrel Protrusion	Blind Side Protrusion				
	Max	Min	Max	Min	Max	Nom	Min	Max	Min, lb.	Min, lb.	Max	Min
3/32	0.096	0.090	0.198	0.178	0.032	0.057	1.00	L + 0.100	90	120	275	175
1/8	0.128	0.122	0.262	0.238	0.040	0.076	1.00	L + 0.120	170	220	600	400
5/32	0.159	0.153	0.328	0.296	0.050	0.095	1.06	L + 0.140	260	350	850	600
3/16	0.191	0.183	0.394	0.356	0.060	0.114	1.06	L + 0.160	380	500	1050	750
1/4	0.255	0.246	0.525	0.475	0.080	0.151	1.25	L + 0.180	700	920	1850	1450

Description	An aluminum blind fastener which has a self-contained steel mandrel 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. The steel mandrel is pulled into or against the rivet body, breaking at or near the junction of the mandrel shank and its upset end. The head of the body is slightly rounded and twice as wide as the body diameter.
Applications/ Advantages	Dome head is the most commonly specified head style because of its low profile and neat, finished appearance. The steel mandrel gives this style rivet greater tensile and shear values than aluminum rivets with aluminum mandrels. They should be used when fastening materials with similar mechanical and physical properties.
Material	*Rivet:* Aluminum Alloy 5056 or 5154 or equivalent alloy. Rivets have no additional finish except for sizes #42 & 44 which are also available painted white. Note: Some manufacturers use aluminum alloy 5052 which is acceptable but will lower the shear, tensile and mandrel break load standards to those of aluminum rivets with aluminum mandrels (see page 144). *Mandrel:* Carbon steel 1006 or equivalent. May be furnished plain or with a protective coating, at the option of the manufacturer.
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.
Mandrel Break Load	While the rivet is being set, the axially applied load necessary to break the mandrel shall be within the limits specified for the applicable rivet size given in the above table.

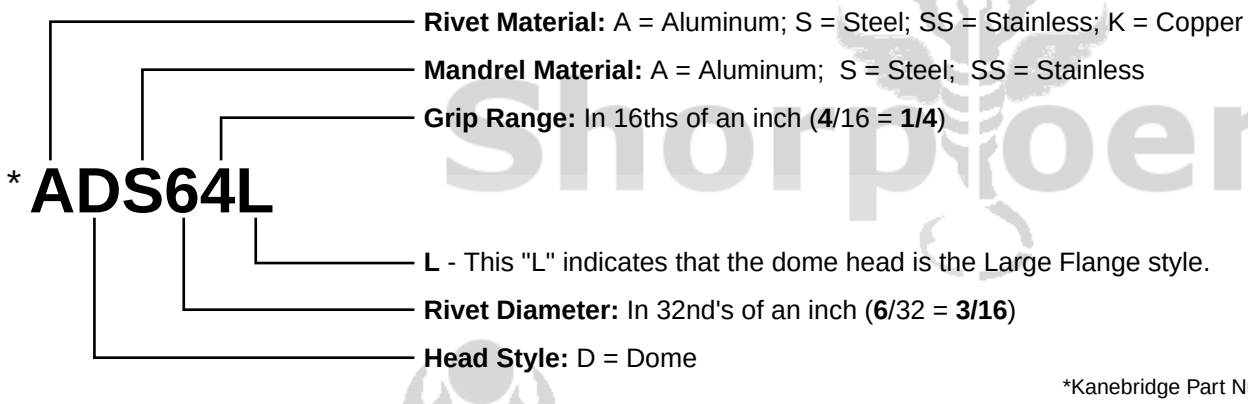
Aluminum Rivet/ Steel Mandrel

Part Number Comparison - Aluminum Rivet/Steel Mandrel

Kanebridge	Huck/ Automatic	Pop®	Marson/ Creative	Star	Celus®	Cherry	Gesipa®
ADS31	-	-	-	-	-	-	-
ADS32	ABS32	AD32BS	AB3-2	-	A/S 32D	BSP-32	GSMD32A
ADS34	ABS34	AD34BS	AB3-4	-	A/S 34D	BSP-34	GSMD34A
ADS41	ABS41	AD41BS	AB4-1	4-1ASD	A/S 41D	BSP-41	GSMD41A
ADS42	ABS42	AD42BS	AB4-2	4-2ASD	A/S 42D	BSP-42	GSMD42A
ADS43	ABS43	AD43BS	AB4-3	4-3ASD	A/S 43D	BSP-43	GSMD43A
ADS44	ABS44	AD44BS	AB4-4	4-4ASD	A/S 44D	BSP-44	GSMD44A
ADS45	ABS45	AD45BS	AB4-5	4-5ASD	A/S 45D	BSP-45	GSMD45A
ADS46	ABS46	AD46BS	AB4-6	4-6ASD	A/S 46D	BSP-46	GSMD46A
ADS48	ABS48	AD48BS	AB4-8	4-8ASD	A/S 48D	BSP-48	GSMD48A
ADS52	ABS52	AD52BS	AB5-2	5-2ASD	A/S 52D	BSP-52	GSMD52A
ADS53	ABS53	AD53BS	AB5-3	5-3ASD	A/S 53D	-	GSMD53A
ADS54	ABS54	AD54BS	AB5-4	5-4ASD	A/S 54D	BSP-54	GSMD54A
ADS56	ABS56	AD56BS	AB5-6	5-6ASD	A/S 56D	BSP-56	GSMD56A
ADS58	ABS58	AD58BS	AB5-8	-	A/S 58D	BSP-58	GSMD58A
ADS510	ABS510	-	-	-	A/S510D	BSP-510	-
ADS512	-	-	-	-	-	-	-
ADS516	-	-	-	-	-	-	-
ADS62	ABS62	AD62BS	AB6-2	6-2ASD	A/S 62D	BSP-62	GSMD62A
ADS64	ABS64	AD64BS	AB6-4	6-4ASD	A/S 64D	BSP-64	GSMD64A
ADS66	ABS66	AD66BS	AB6-6	6-6ASD	A/S 66D	BSP-66	GSMD66A
ADS68	ABS68	AD68BS	AB6-8	6-8ASD	A/S 68D	BSP-68	GSMD68A
ADS610	ABS610	AD610BS	AB6-10	6-10ASD	A/S610D	BSP-610	GSMD610A
ADS612	ABS612	AD612BS	AB6-12	6-12ASD	A/S612D	BSP-612	GSMD612A
ADS614	ABS614	AD614BS	-	-	A/S614D	BSP-614	GSMD614A
ADS616	ABS616	AD616BS	AB6-16	-	A/S616D	BSP-616	GSMD616A
ADS618	ABS618	-	-	-	-	-	-
ADS620	-	-	-	-	-	-	-
ADS622	-	-	-	-	-	-	-
ADS84	ABS84	AD84BS	AB8-4	-	A/S 84D	BSP-84	GSMD84A
ADS86	ABS86	AD86BS	AB8-6	-	A/S 86D	BSP-86	GSMD86A
ADS88	ABS88	AD88BS	AB8-8	-	A/S 88D	BSP-88	GSMD88A
ADS810	ABS810	AD810BS	-	-	A/S810D	BSP-810	GSMD810A

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®Gesipa is a registered trademark of Gesipa Fasteners USA Inc..
®Pop is a registered trademark of Pop Fastening Systems, Emhart Fastening Teknologies, a Black & Decker Company.
Kanebridge's rivets are not manufactured by or connected with the producers of Gesipa® or Pop® rivets.

Part Number Key



*Kanebridge Part Number

Notes on Rivet Selection

Strength- The tensile and shear strengths required for an application must be determined and a rivet selected that meets those requirements.

Materials- Choose a rivet that is made of a metal with similar mechanical and physical properties as the materials being joined. This is especially critical in assemblies where higher temperatures and/or corrosive elements are present. Metal compatability helps reduce the risks of galvanic corrosion and material fatigue.

Grip Range- Measure the total thickness of the materials being fastened. This is known as the “rivet grip”. The grip ranges of the most commonly available rivets are listed in the table below. Sufficient rivet length is necessary for proper formation of the secondary head on the blind side of the assembly. Multi-grip rivets have wider grip ranges than standard break-stem blind rivets.

Application Data for Standard Break-Stem Blind Rivets — SAE J-1200

Rivet Number	Grip Range	Barrel Length	Recommended Hole Size		Drill Size
		Max	Max	Min	
31	.020-.062	.187	0.100	0.097	#41
32	.020-.125	.250			
33	.087-.187	.312			
34	.126-.250	.375			
41	.020-.062	.212	0.133	0.129	#30
42	.063-.125	.275			
43	.126-.187	.337			
44	.188-.250	.400			
45	.251-.312	.462			
46	.313-.375	.525			
48	.376-.500	.650			
52	.020-.125	.300	0.164	0.160	#20
53	.125-.187	.362			
54	.188-.250	.425			
56	.251-.375	.550			
58	.376-.500	.675			
510	.501-.625	.800			
512	.626-.750	.925			
516	.876-1.000	1.175			

Rivet Number	Grip Range	Barrel Length	Recommended Hole Size		Drill Size
		Max	Max	Min	
62	.020-.125	.325	0.196	0.192	#11
63	.126-.187	.387			
64	.188-.250	.450			
66	.251-.375	.575			
68	.376-.500	.700			
610	.510-.625	.825			
612	.626-.750	.950			
614	.751-.875	1.075			
616	.876-1.000	1.200			
618	1.001-1.125	1.325			
620	1.126-1.250	1.450			
622	1.251-1.375	1.575			
84	.126-.250	.500	0.261	0.257	F
86	.251-.375	.625			
88	.376-.500	.750			
810	.501-.625	.875			
812	.626-.750	.990			
816	.751-1.000	1.240			