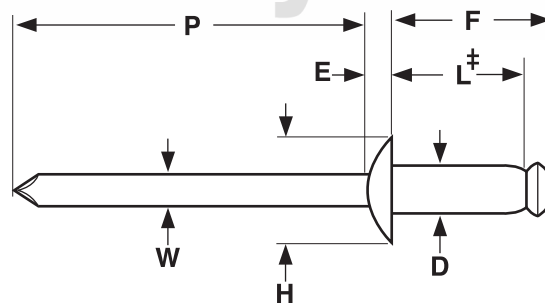


RIVETS

BLIND, LARGE FLANGE

Aluminum / Aluminum,
Aluminum / Steel

Fasteners By Design Inc.



LARGE FLANGE BREAK-STEM BLIND RIVETS								SAE J-1200
Nominal Rivet Diameter	D		H		E	W	P	F
	Rivet Shank Diameter		Head Diameter		Head Height	Mandrel Diameter	Mandrel Protrusion	Blind Side Protrusion
	Max	Min	Max	Min	Max	Nom	Min	Max
1/8	0.128	0.122	.390	.360	.065	0.076	1.00	L + 0.120
5/32	0.159	0.153	.488	.448	.075	0.095	1.06	L + 0.140
3/16	0.191	0.183	.650	.600	.092	0.114	1.06	L + 0.160

Description	A blind fastener which has a self-contained 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 mandrel is pulled into or against the rivet body, breaking at or near the junction of the mandrel shank and its upset end. The large flange head has twice the under-head bearing surface of comparably sized dome head rivets.
Applications/ Advantages	Large flange rivets are preferred where extra brittle or soft materials are being assembled to a rigid surface.
Material	<i>Rivet Body:</i> Aluminum-- Aluminum Alloy 5050, 5052, 5056 or 5154. <i>Mandrel:</i> Aluminum-- Aluminum Alloy 7178, 5056 or 2024. <i>Steel</i> -- Carbon steel 1006 or equivalent. May be furnished plain or with a protective coating, at the option of the manufacturer.
Shear Strength (Min)	<i>Aluminum Rivet/Aluminum Mandrel</i> -- 1/8: 120 lbs.; 5/32: 190 lbs.; 3/16: 260 lbs. <i>Aluminum Rivet/Steel Mandrel</i> -- 1/8: 170 lbs.; 5/32: 260 lbs.; 3/16: 380 lbs.
Tensile Strength (Min)	<i>Aluminum Rivet/Aluminum Mandrel</i> -- 1/8: 150 lbs.; 5/32: 230 lbs.; 3/16: 320 lbs. <i>Aluminum Rivet/Steel Mandrel</i> -- 1/8: 220 lbs.; 5/32: 350 lbs.; 3/16: 500 lbs.
Mandrel Break Load	<i>Alum Rivet/Alum Mandrel</i> -- 1/8: 400 lbs. max, 250 lbs. min; 5/32: 600 lbs max, 425 lbs. min; 3/16: 825 lbs. max, 625 lbs. min. <i>Alum Rivet/Steel Mandrel</i> -- 1/8: 600 lbs. max, 400 lbs. min; 5/32: 850 lbs max, 600 lbs. min; 3/16: 1050 lbs. max, 750 lbs. min.

Fasteners By Design Inc.

Aluminum / Aluminum
Aluminum / Steel

BLIND, LARGE FLANGE

PART NUMBER COMPARISON - LARGE FLANGE ALUMINUM RIVET/ALUMINUM MANDREL							
Catalog Part Number	Huck-Automatic	Pop®	Marson/Creative	Star	Celus®	Cherry	Gesipa®
ADA42L	ABA42L	AD42ABSLF	ABL4-2A	4-2AALF	A/A42LF	AAL-42	GAML42A
ADA43L	-	AD43ABSLF	ABL4-3A	-	A/A43LF	-	-
ADA44L	ABA44L	AD44ABSLF	ABL4-4A	4-4AALF	A/A44LF	AAL-44	GAML44A
ADA45L	-	-	-	-	-	-	-
ADA46L	ABA46L	AD46ABSLF	-	-	A/A46LF	AAL-46	GAML46A
ADA48L	-	-	-	-	-	AAL-48	-
ADA52L	-	-	-	-	-	-	-
ADA53L	-	-	-	-	A/A53LF	-	-
ADA54L	ABA54L	AD54ABSLF	-	-	A/A54LF	AAL-54	-
ADA56L	ABA56L	AD56ABSLF	-	-	A/A56LF	AAL-56	-
ADA58L	-	AD58ABSLF	-	-	-	AAL-58	-
ADA510L	-	-	-	-	-	-	-
ADA62L	-	-	-	-	-	-	-
ADA63L	-	-	-	-	-	-	-
ADA64L	ABA64L	AD64ABSLF	ABL6-4A	-	A/A64LF	AAL-64	GAML64A
ADA66L	ABA66L	AD66ABSLF	ABL6-6A	6-6AALF	A/A66LF	AAL-66	GAML66A
ADA68L	ABA68L	AD68ABSLF	ABL6-8A	6-8AALF	A/A68LF	AAL-68	GAML68A
ADA610L	ABA610L	AD610ABSLF	ABL6-10A	6-10AALF	A/A610LF	AAL-610	GAML610A
ADA612L	ABA612L	AD612ABSLF	ABL6-12A	-	A/A612LF	AAL-612	GAML612A
ADA616L	-	-	-	-	A/A616LF	-	-
ADA620L	-	-	-	-	-	-	-

PART NUMBER COMPARISON - LARGE FLANGE ALUMINUM RIVET/STEEL MANDREL							
Catalog Part Number	Huck/Automatic	Pop®	Marson/Creative	Star	Celus®	Cherry	Gesipa®
ADS42L	ABS42L	AD42BSLF	ABL4-2	-	A/S42LF	BSL-42	GSML42A
ADS43L	ABS43L	AD43BSLF	ABL4-3	-	A/S43LF	-	-
ADS44L	ABS44L	AD44BSLF	ABL4-4	4-4 ASLF	A/S44LF	BSL-44	GSML44A
ADS46L	-	AD46BSLF	-	-	A/S46LF	BSL-46	GSML46A
ADS48L	-	AD48BSLF	-	-	-	BSL-48	-
ADS52L	-	-	-	-	-	-	-
ADS53L	-	-	-	-	A/S53LF	-	-
ADS54L	ABS54L	AD54BSLF	-	-	A/S54LF	BSL-54	-
ADS56L	ABS56L	-	-	-	A/S56LF	BSL-56	-
ADS58L	-	-	-	-	-	BSL-58	-
ADS510L	-	-	-	-	-	-	-
ADS62L	-	-	-	-	-	-	-
ADS63L	-	-	-	-	-	-	-
ADS64L	ABS64L	AD64BSLF	ABL6-4	-	A/S64LF	BSL-64	GSML64A
ADS66L	ABS66L	AD66BSLF	ABL6-6	6-6ASLF	A/S66LF	BSL-66	GSML66A
ADS68L	ABS68L	AD68BSLF	ABL6-8	6-8ASLF	A/S68LF	BSL-68	GSML68A
ADS610L	ABS610L	AD610BSLF	ABL6-10	6-10ASLF	A/S610LF	BSL-610	GSML610A
ADS612L	ABS612L	AD612BSLF	ABL6-12	6-12ASLF	A/S612LF	BSL-612	GSML612A

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Gesipa® is a registered trademark of Gesipa Fasteners USA, Inc.

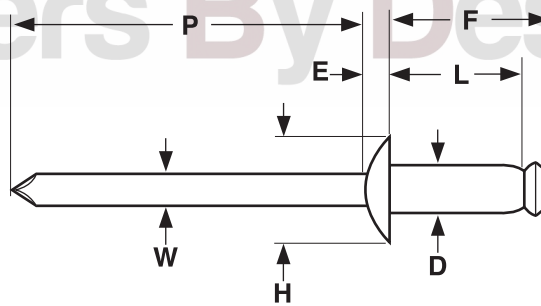
Pop® is a registered trademark of Emhart Technologies, LLC.

Kanebridge's rivets are not necessarily manufactured by or connected with the producers of Gesipa® or Pop® rivets.

RIVETS

BLIND, LARGE FLANGE Steel / Steel Stainless / Steel

Fasteners By Design Inc.



LARGE FLANGE BREAK-STEM BLIND RIVETS								SAE J-1200
Nominal Rivet Diameter	D		H		E	W	P	F
	Rivet Shank Diameter		Head Diameter		Head Height	Mandrel Diameter	Mandrel Protrusion	Blind Side Protrusion
	Max	Min	Max	Min	Max	Nom	Min	Max
1/8	.128	.122	.390	.360	.065	.076	1.00	L + 0.120
5/32	.159	.153	.488	.448	.075	.095	1.06	L + 0.140
3/16	.191	.183	.650	.600	.092	.114	1.06	L + 0.160
1/4	.255	.246	.780	.720	.107	.151	1.25	L + 0.180

Fasteners By Design Inc.

Description	A blind fastener with a self-contained carbon 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. 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 large flange head has twice the under-head bearing surface of comparably sized dome head rivets.	
Applications/ Advantages	Large flange rivets are preferred where extra brittle or soft materials are being assembled to a rigid surface. Stainless rivets offer both corrosion resistance as well as high shear and tensile values. The stainless rivet body/steel mandrel combination is usually less expensive than the all stainless rivet.	
Material	Steel Body / Steel Mandrel	Stainless Body / Steel Mandrel
	Rivet Body: Steel-- Low carbon steel, plated zinc. Mandrel: Steel-- Carbon steel 1006 or equivalent. May be furnished plain or with a protective coating, at the option of the manufacturer.	Rivet Body: 300-series stainless; Mandrel: Carbon steel
Shear Strength (Min.)	1/8: 260 lbs.; 5/32: 370 lbs.; 3/16: 540 lbs.; 1/4: 1000 lbs.	1/8: 420 lbs.; 5/32: 650 lbs.; 3/16: 950 lbs.; 1/4: 1700 lbs
Tensile Strength (Min.)	1/8: 220 lbs.; 5/32: 470 lbs.; 3/16: 680 lbs.; 1/4: 1240 lbs.	1/8: 530 lbs.; 5/32: 820 lbs.; 3/16: 1200 lbs.; 1/4: 2100 lbs
Mandrel Break Load	1/8: 800 lbs. max, 600 lbs. min. 5/32: 1000 lbs max, 750 lbs. min. 3/16: 1450 lbs. max, 1150 lbs. min. 1/4: 2350 lbs. max, 1950 lbs. min.	1/8: 650 - 950 lbs. 5/32: 1150 - 1450 lbs. 3/16: 1400 - 1900 lbs. 1/4: 3000 - 3600 lbs

Fasteners By Design Inc.

Steel / Steel
Stainless / Steel

BLIND, LARGE FLANGE

PART NUMBER COMPARISON - LARGE FLANGE STEEL RIVET/STEEL MANDREL							
Catalog Part Number	Huck/ Automatic	Pop®	Marson/ Creative	Star	Celus®	Cherry	Gesipa®
SDS42L	SBS42L	SD42BSLF	SBL4-2	4-2SSLF	S/S42LF	SSL-42	GSML42S
SDS43L	-	-	SBL4-3	-	S/S43LF	-	-
SDS44L	SBS44L	SD44BSLF	SBL4-4	4-4SSLF	S/S44LF	SSL-44	GSML44S
SDS45L	-	-	-	-	-	-	-
SDS46L	-	-	SBL4-6	-	S/S46LF	SSL-46	GSML46S
SDS48L	-	-	SBL4-8	-	S/S48LF	SSL-48	-
SDS52L	-	-	-	-	-	-	-
SDS53L	-	-	-	-	S/S53LF	-	-
SDS54L	-	SD54BSLF	SBL5-4	-	S/S54LF	SSL-54	GSML54S
SDS56L	-	-	SBL5-6	-	S/S56LF	SSL-56	-
SDS58L	-	-	SBL5-8	-	-	SSL-58	-
SDS510L	-	-	-	-	-	-	-
SDS62L	-	-	-	-	-	-	-
SDS63L	-	-	-	-	-	-	-
SDS64L	SBS64L	SD64BSLF	SBL6-4	-	S/S 64LF	SSL-64	GSML64S
SDS66L	SBS66L	SD66BSLF	SBL6-6	6-6SSLF	S/S 66LF	SSL-66	GSML66S
SDS68L	SBS68L	SD68BSLF	SBL6-8	6-8SSLF	S/S 68LF	SSL-68	GSML68S
SDS610L	SBS610L	SD610BSLF	SBL6-10	6-10SSLF	S/S610LF	SSL-610	GSML610S
SDS612L	SBS612L	SD612BSLF	SBL6-12	-	S/S612LF	SSL-612	GSML612S

PART NUMBER COMPARISON - STAINLESS STEEL RIVET/STEEL MANDREL <i>LARGE FLANGE</i>							
Catalog Part Number	Huck/ Automatic	Pop®	Marson/ Creative	Star	Celus®	Cherry	Gesipa®
SSDS41L	-	-	-	-	-	-	-
SSDS42L	-	SSD42BSLF	SSBL4-2	-	SS/S42LF	CSL-42	-
SSDS43L	-	SSD43BSLF	SSBL4-3	-	-	-	-
SSDS44L	-	SSD44BSLF	SSBL4-4	-	SS/S44LF	CSL-44	-
SSDS45L	-	-	-	-	-	-	-
SSDS46L	-	-	SSBL4-6	-	SS/S46LF	CSL-46	-
SSDS48L	-	-	-	-	-	-	-
SSDS52L	-	-	-	-	-	-	-
SSDS53L	-	-	-	-	-	-	-
SSDS54L	-	-	-	-	SS/S54LF	CSL-54	-
SSDS56L	-	-	-	-	-	CSL-56	-
SSDS58L	-	-	-	-	-	-	-
SSDS510L	-	-	-	-	-	-	-
SSDS62L	-	-	-	-	-	-	-
SSDS63L	-	-	-	-	-	-	-
SSDS64L	-	-	SSBL6-4	-	-	CSL-64	-
SSDS66L	-	-	SSBL6-6	-	SS/S66LF	CSL-66	-
SSDS68L	-	-	SSBL6-8	-	SS/S68LF	CSL-68	-
SSDS610L	-	-	SSBL6-10	-	SS/S610LF	-	-
SSDS612L	-	-	SSBL6-12	-	SS/S612LF	-	-
SSDS614L	-	-	-	-	-	-	-
SSDS616L	-	-	-	-	SS/S616LF	-	-

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Internationale Patentverwertung M.B.H.-Gesipa.

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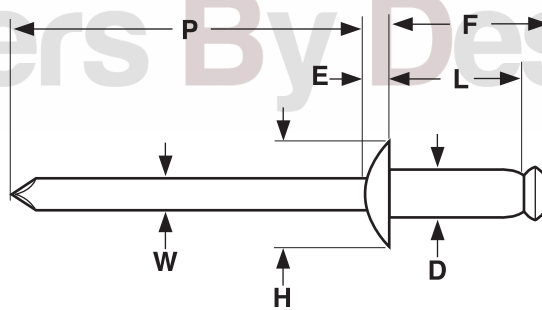
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RIVETS

LARGE FLANGE, DOME HEAD Stainless Rivet Stainless Mandrel

Fasteners By Design Inc.



LARGE FLANGE BREAK-STEM BLIND RIVETS								SAE J-1200
Nominal Rivet Diameter	D		H		E	W	P	F
	Rivet Shank Diameter		Head Diameter		Head Height	Mandrel Diameter	Mandrel Protrusion	Blind Side Protrusion
	Max	Min	Max	Min	Max	Nom	Min	Max
1/8	.128	.122	.390	.360	.065	.076	1.00	L + 0.120
5/32	.159	.153	.488	.448	.075	.095	1.06	L + 0.140
3/16	.191	.183	.650	.600	.092	.114	1.06	L + 0.160
1/4	.255	.246	.780	.720	.107	.151	1.25	L + 0.180

Fasteners By Design Inc.

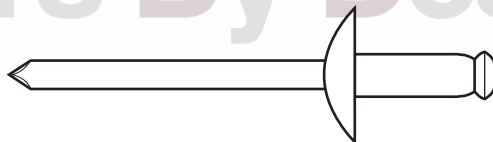
Description	A blind fastener with a self-contained stainless steel mandrel which permits the formation of an upset on the blind end of the rivet and expansion of the rivet shank during rivet setting. The stainless steel mandrel is pulled into or against the rivet body, breaking at or near the junction of the mandrel shank and its upset end. The large flange head has twice the under-head bearing surface of comparably sized dome head rivets.
Applications/Advantages	Large flange rivets are preferred where extra brittle or soft materials are being assembled to a rigid surface. Stainless rivets offer both corrosion resistance as well as high shear and tensile values. The stainless rivet body/stainless mandrel combination offers corrosion resistance superior to a stainless rivet with a steel mandrel..
Material	Rivet Body: 300 series stainless Mandrel: 300 series stainless
Shear Strength (Min.)	5/32: 370 lbs.; 3/16: 540 lbs.
Tensile Strength (Min.)	5/32: 470 lbs.; 3/16: 680 lbs.
Mandrel Break Load	5/32: 1000 lbs max, 750 lbs. min; 3/16: 1450 lbs. max, 1150 lbs. min.

Fasteners By Design Inc.

Stainless Rivet
Stainless Mandrel

LARGE FLANGE, DOME HEAD

Fasteners By Design Inc.



PART NUMBER COMPARISON - LARGE FLANGE ALL STAINLESS STEEL BLIND RIVETS

Catalog Part Number	Huck/ Automatic	Pop®	Marson/ Creative	Star	Celus®	Cherry	Gesipa®
SSDSS42L	-	SSD42SSBSLF	SSBL4-2S	-	SS/SS42LF	CCL-42	-
SSDSS43L	-	SSD43SSBSLF	SSBL4-3S	-	-	-	-
SSDSS44L	-	SSD44SSBSLF	SSBL4-4S	-	-	CCL-44	-
SSDSS45L	-	-	-	-	-	-	-
SSDSS46L	-	-	-	-	-	CCL-46	-
SSDSS48L	-	-	-	-	-	-	-
SSDSS52L	-	-	-	-	-	-	-
SSDSS53L	-	-	-	-	-	-	-
SSDSS54L	-	-	-	-	-	CCL-54	-
SSDSS56L	-	-	-	-	-	CCL-56	-
SSDSS58L	-	-	-	-	-	-	-
SSDSS510L	-	-	-	-	-	-	-
SSDSS62L	-	-	-	-	-	-	-
SSDSS63L	-	-	-	-	-	-	-
SSDSS64L	-	-	SSBL6-4S	-	-	CCL-64	-
SSDSS66L	-	-	SSBL6-6S	-	SS/SS66LF	CCL-66	-
SSDSS68L	-	-	SSBL6-8S	-	-	CCL-68	-
SSDSS610L	-	-	SSBL6-10S	-	SS/SS610LF	-	-
SSDSS612L	-	-	SSBL6-12S	-	SS/SS612LF	-	-

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RIVETS

DOME & LARGE FLANGE Part Number Key & Application Data

Rivet Material: A = Aluminum; S = Steel; SS = Stainless; K = Copper

Mandrel Material: A = Aluminum; S = Steel; SS = Stainless

Grip Range: In 16ths of an inch ($4/16 = 1/4$)

*** ADS64L**

L - This "L" indicates that the dome head is the Large Flange style.

Rivet Diameter: In 32nd's of an inch ($6/32 = 3/16$)

Head Style: D = Dome C = Countersunk

*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 compatibility 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 -- PROTRUDING HEADS

SAE
J-1200

Rivet Number	Grip Range	Barrel Length Max	Recommended Hole Size		Drill Size	Rivet Number	Grip Range	Barrel Length Max	Recommended Hole Size		Drill Size			
			Max	Min					Max	Min				
31	.020-.062	.187	0.100	0.097	#41	62	.020-.125	.325	0.196	0.192	#11			
32	.020-.125	.250				63	.126-.187	.387						
33	.087-.187	.312				64	.188-.250	.450						
34	.126-.250	.375				66	.251-.375	.575						
40	.010-.030	.150	0.133	0.129	#30	68	.376-.500	.700				610	.501-.625	.825
41	.020-.062	.212				612	.626-.750	.950						
42	.063-.125	.275				614	.751-.875	1.075						
43	.126-.187	.337				616	.876-1.000	1.200						
44	.188-.250	.400				618	1.001-1.125	1.325						
45	.251-.312	.462				620	1.126-1.250	1.450						
46	.313-.375	.525				622	1.251-1.375	1.575						
48	.376-.500	.650				82	.020-.125	.375						
410	.501-.625	.775	0.164	0.160	#20	84	.126-.250	.500	0.261	0.257	F			
52	.020-.125	.300				86	.251-.375	.625						
53	.126-.187	.362				88	.376-.500	.750						
54	.188-.250	.425				810	.501-.625	.875						
56	.251-.375	.550				812	.626-.750	1.000						
58	.376-.500	.675				814	.751-.875	1.125						
510	.501-.625	.800				816	.876-1.000	1.250						
512	.626-.750	.925												
516	.876-1.000	1.175												