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Howmet Fastening Systems (HFS) offers the broadest line of blind fasteners in the industry. The breadth of the line is supported by the company's Industrial Distribution Group (IDG) and a nationwide network of independent stocking warehouses, which maintain inventories for delivery to customers within hours. In short, the company's responsiveness to its customers and their changing industrial needs is second-to-none.

In an ongoing effort to be the best, HFS's Industrial Distribution Group also offers custom services such as painting, plating, anodizing, packaging, bar-coding and labeling.

Quality Policy

Howmet Fastening Systems is committed to satisfying our customers by delivering safe and reliable products and services. Marson[®] brand rivets are engineered in accordance with and governed by the Industrial Fastener Institute quality standards.

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General Information — Blind Rivets

Rivet Styles	Features/Benefits	Materials Available		
Open End	 For blind fastening where there is no access to opposite side of work Simple to install Wide variety of head styles and lengths available from 3/32" to 1/4" diameters 	Steel/steel, Aluminum/aluminum Aluminum/steel, Stainless/stainless Stainless/steel, Copper/brass, Copper/steel		
CLOSED END	 MOISTURE-RESISTANT DUE TO CLOSED END GREATER SHEAR AND TENSILE STRENGTH MANDREL IS RETAINED 100% OF TIME 1/8" TO 1/4" DIAMETERS 	Aluminum/steel, Aluminum/aluminum, Stainless/stainless		
Multi-Grip	 Extended grip range capacity Reduces inventory (fewer sizes required) Use as a standard open end rivet 1/8" to 3/16" diameters 	Aluminum/steel, Steel/steel		
Tri-Bulb	 Large footprint on blind side Multi-grip capability Oversized hole tolerant Great for soft or brittle materials Available in 5/32" to 3/16" diameters 	Aluminum/aluminum		
Q-Lok	 RETAINED MANDREL INCREASES SHEAR AND TENSILE STRENGTH USE IN HIGH VIBRATION APPLICATIONS MANDREL BREAKS FLUSH WHEN USED IN MID-GRIP RANGE MOISTURE-RESISTANT DUE TO TIGHT SEAL 3/16" DIAMETER 	Steel/steel		
Кык-Lock	 Permanently retained mandrel provides increased shear and tensile values Use in high vibration applications Provides weather-resistant joint Available in 3/16" and 1/4" diameters 	Steel/steel, Aluminum/aluminum, Stainless/stainless		
T-Rivets	 High clamp up High shear strength Creates a wide bearing surface 1/4" diameter 	Aluminum/steel		
Special Application Rivets	 Small flange rivet used primarily for fastening decorative materials on boats, automobiles, trucks and other motor vehicles Best suited to applications where a discreet, secure installation of non-critical components is needed 	Stainless/steel, Aluminum / aluminum		
PLASTIC	 Precision-molded, all-nylon Secure lock prevents pull-out Fasten plastic to plastic, plastic to metal or plastic to fiberglass 	Nylon body, Delrin 500 Mandrel		

Head Styles



Features / Benefits

- LOW PROFILE HEAD DIAMETER IS TWICE THE RIVET BODY DIAMETER, PROVIDING ADEQUATE BEARING SURFACE
 FOR NEARLY ALL APPLICATIONS
- OPEN-END BUTTONHEAD RIVETS OFFER THE BROADEST SELECTION OF SIZES AVAILABLE
- PROVIDES GREATER BEARING SURFACE FOR FASTENING SOFT AND BRITTLE FACING MATERIALS AND OVERSIZE FACING HOLES
 WORKS WELL WITH SOFT MATERIALS, WHERE THE INCREASED FLANGE DIAMETER PROTECTS THE INTEGRITY
- OF THE APPLICATION
- $120^{\circ}\,\text{countersunk rivets for applications where flush appearance is required}$



Design Information

HFS Code Descriptions

Example: ABL6-6A

-Rivet Material (A = Aluminum, S = Steel, C = Copper, SS = Stainless Steel) A — First Letter.....
- B Second Letter.....Style of Head (B = Buttonhead, C = Countersunk)
- L Third Letter (if any).....Large Flange Head
- 6 First Number......Body Diameter in 32nds
- 6 Second Number......Maximum Grip Length in 16ths
- A Final Letter......A = Aluminum Mandrel, S = Stainless Steel Mandrel, B = Brass Mandrel,
 - C = Copper-Plated Steel Mandrel, CLD = Closed-End Mandrel
 - MG = Multi-Grip, QL = Q-Lok, KL = Klik-Lock
 - ATB = All Aluminum Tri-Bulb Rivet. No letter indicates steel mandrel.

Design Information

- 1. The shear and tensile strength of the rivet selected and the number of rivets used in the application should equal or exceed the joint strength requirements. Typical ultimate shear and tensile strengths are listed by diameter and material on pages 5 through 17 of this catalog. Testing is recommended before final selection and use in product.
- 2. The rivet body material should be compatible with the materials to be joined to resist galvanic corrosion which may result in reduction of joint strength. If dissimilar materials are widely separated on the galvanic chart, it is advisable to separate them with a dielectric material such as paint or other coating. HFS can paint colors to match, as well as anodize or plate to your specifications.
- 3. After determination of strengths required by diameter and material, the total thickness of materials to be joined must be considered. The grip range for each rivet is listed on pages 5 through 17. Select the rivet grip range which includes the total thickness of materials to be joined. Please note that the rivet barrel length (Column L) is not the grip range.
- Use recommended hole sizes for each rivet as shown on pages 5 through 17. An undersize hole will not allow insertion of rivet body. An 4. oversize hole may cause rivet or joint failure and could adversely affect rivet shear and tensile strengths.
- The various head styles (illustrated on page 3) are offered to accommodate different assembly needs. The most popular Klik-Fast rivet is the 5. buttonhead, whose lower-profile head is twice the diameter of the rivet body. This provides adequate bearing surface for nearly all applications. The large flange Klik-Fast rivet provides greater bearing surface for fastening soft or brittle facing materials. The countersunk Klik-Fast rivet is available for applications where a flush appearance is required.
- 6. Please visit us at Hfsindustrial.com and e-mail your questions. We will follow up with evaluations, recommendations and testing if required.
 - Samples are available upon request
 - Special packaging available

Installation Sequence



1 Insert rivet mandrel in rivet setting tool.





One Length

Handles Both



Hollow Extrusions and Tubes



No Surface

Distortion

Hard and Soft



2 Using tool as a guide,

insert rivet into

prepared hole.

Materials



and Tamper

Resistant





Low-Profile Heads



FENS





4

High Strength

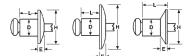
3 Or insert rivet into prepared hole and then

Squeeze trigger or handles to set rivet. Mandrel ejects after rivet is set.

engage the mandrel with rivet-setting tool.

No Marred Surfaces





Steel Rivets

	D			1		1					
AFS Description	Bulk Part No.**	Grip Range		D Rivet Dia Nom Inch	Drill No. and Hole Size	H Head Dia Nom Inch	E H Head Height Max Inch	L Rivet Length Max		Typical Ultimate Strengti (LBS.) (NEWTONS)	
		INCH	(мм)	(MM)	(мм)	(MM)	(MM)	INCH	(MM)	Shear	Tensile
SB3-2	M50100	.020125	.5-3.2	3/32″ (.094)	#41 (.097100)	.188	.032	.250	6.4	160	200
SB3-4	M50102	.126250	3.3-6.4	2.4	(2.46-2.54)	4.78	.810	.375	9.5	711	889
SB4-1	M50111	.020062	.5-1.6	1/8″ (.125)	#30(.129133)	.250	.040	.212	5.4	305	410
SB4-2	M50112	.063125	1.7-3.2	3.2	(3.28-3.38)	6.35	1.02	.275	7.0	1356	1823
SB4-3	M50115	.126187	3.3-4.8					.337	8.6		
SB4-4	M50117	.188250	4.9-6.4					.400	10.2		
SB4-5	M50120	.251312	6.5-7.9 8.0-9.5					.462	11.7		
SB4-6 SB4-8	M50121 M50122	.313375 .376500	9.6-12.7					.525	13.4 16.5		
SB4-8 SB4-10	M50122	.501625	12.8-15.9					.650	19.7		
SB5-2	M50123	.020125	.5-3.2	5/32″ (.156)	#20(.160164)	.312	.050	.300	7.6	420	600
SB5-2	M50132	.126187	3.3-4.8	4.0	(4.06-4.16)	7.92	1.27	.362	9.2	1868	2668
SB5-4	M50135	.188250	4.9-6.4	1.0	(1.00 1.10)	1.52	1.27	.425	10.8	1000	2000
SB5-6	M50136	.251375	6.5-9.5					.550	14.0		
SB5-8	M50137	.376500	9.6-12.7					.675	17.2		
SB5-10	M50131	.501675	12.8-17.1					.800	20.3		
SB5-12	M50133	.676750	17.2-19.1					.925	23.5		
SB6-2	M50145	.020125	.5-3.2	3/16″ (.187)	#11 (.192196)	.375	.060	.325	8.3	610	870
SB6-4	M50147	.126250	3.3-6.4	4.8	(4.88-4.98)	9.53	1.52	.450	11.5	2713	3889
SB6-6	M50149	.251375	6.5-9.5					.575	14.6		
SB6-8	M50152	.376500	9.6-12.7					.700	17.8		
SB6-10	M50155	.501625	12.8-15.9					.825	21.0		
SB6-12	M50159	.626750	16.0-19.1					.950	24.2		
SB6-14	M50163	.751875	19.2-22.2					1.075	27.3		
SB6-16	M50170	.876-1.000	22.3-25.4					1.200	30.5		
SB8-2	M50179	.020125	.5-3.2	1/4″ (.250)	F (.257261)	.500	.080	.375	9.4	1270	1550
SB8-4	M50181	.126250	3.3-6.4	6.4	(6.53-6.63)	12.70	2.03	.500	12.7	5649	6894
SB8-6	M50183	.251375	6.5-9.5					.625	15.9		
SB8-8 SB8-10	M50185 M50187	.376500 .501625	9.6-12.7 12.8-15.9					.750	19.1 21.0		
SB8-10 SB8-12	M50187	.626750	16.0-19.1					1.000	21.0		
SB8-12 SB8-14	M50189	.751875	19.2-22.2					1.125	25.4		
SB8-14	M50190	.876-1.000	22.3-25.4					1.250	31.8		
LARGE FLAN			22.5 25.1					1.250	51.0		L
SBL4-2	M50114	.063125	1.7-3.2	1/8″ (.125)	#30(.129133)	.375	.065	.275	7.0	305	410
SBL4-3	M50124	.126187	3.3-4.8	3.2	(3.28-3.38)	9.53	1.65	.337	8.6	1356	1823
SBL4-4	M50119	.188250	4.9-6.4					.400	10.2		
SBL4-6	M50108	.313375	8.0-9.5					.525	13.3		
SBL4-8	M50109	.376500	9.6-12.7					.650	16.5		
SBL5-4	M50138	.188250	4.9-6.4	5/32″(.156)	#20(.160164)	.468	.070	.425	10.8	420	600
SBL5-6	M50139	.251375	6.5-9.5	4.0	(4.06-4.16)	11.90	1.77	.550	14.0	1868	2668
SBL5-8	M50110	.376500	9.6-12.7					.675	17.2		
SBL6-4	M50148	.126250	3.3-6.4	3/16″ (.187)	#11 (.192196)	.615	.090	.450	11.5	610	870
SBL6-6	M50150	.251375	6.5-9.5	4.8	(4.88-4.98)	15.88	2.28	.575	14.6	2713	3869
SBL6-8	M50153	.376500	9.6-12.7					.700	17.8		
SBL6-10	M50156	.501625	12.8-15.9					.825	21.0		
SBL6-12	M50160	.626750	16.0-19.1					.950	24.2		
SBL6-14	M50165	.751875	19.2-22.2					1.075	27.3		
SBL6-16 120° Coun	M50167	.876-1.000	22.3-25.4					1.200	30.5		1
SC4-2		002 125	12.21	1/0// (105)	#20(120 122)	220	021	275	70	205	410
SC4-2 SC4-3	M50113 M50116	.092125 .126187	2.3-3.2 3.3-4.8	1/8″ (.125) 3.2	#30(.129133) (3.28-3.38)	.220	.031	.275	7.0 8.6	305 1356	410 1823
SC4-3 SC4-4	M50116 M50118	.126187	4.9-6.4	5.2	(3.20-3.38)	5.59	1.14	.337	10.2	0001	1823
SC4-4 SC4-6	M50118 M50126	.188250	6.5-9.5					.525	13.3		
SC4-8	M50128	.376500	9.6-12.7					.650	16.5		
SC5-4	M50127	.188250	4.9-6.4	5/32″(.156)	#20(.160164)	.281	.040	.425	10.5	420	600
303-4				4.0	(4.06-4.16)	7.20	1.20	. 12.7	10.0	1868	2668
SC6-4	M50151	.151250	3.8-6.4	3/16″(.187)	#11 (.192196)	.350	.050	.450	11.4	610	870
SC6-6	M50129	.251375	6.5-9.5	4.8	(4.88-4.98)	8.89	1.27	.575	14.6	2713	3869

KLIK-FAST RIVETS conform to IFI-114 (inch) and IFI-505 (metric). Millimeters (mm) and new tons (N) are in green. ** Also available in various packaged quantities.