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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

OPEN END



CLOSED END



MULTI-GRIP



TRI-BULB



Q-LOK



KLIK-LOCK



T-RIVETS



SPECIAL APPLICATION RIVETS



PLASTIC



## Features/Benefits

- 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
- MOISTURE-RESISTANT DUE TO CLOSED END
- GREATER SHEAR AND TENSILE STRENGTH
- MANDREL IS RETAINED 100% OF TIME
- 1/8" TO 1/4" DIAMETERS
- EXTENDED GRIP RANGE CAPACITY
- REDUCES INVENTORY (FEWER SIZES REQUIRED)
- USE AS A STANDARD OPEN END RIVET
- 1/8" TO 3/16" DIAMETERS
- 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
- 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
- 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
- HIGH CLAMP UP
- HIGH SHEAR STRENGTH
- CREATES A WIDE BEARING SURFACE
- 1/4" DIAMETER
- 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
- PRECISION-MOLDED, ALL-NYLON
- SECURE LOCK PREVENTS PULL-OUT
- FASTEN PLASTIC TO PLASTIC, PLASTIC TO METAL OR PLASTIC TO FIBERGLASS

## Materials Available

- STEEL/STEEL, ALUMINUM/ALUMINUM
- ALUMINUM/STEEL, STAINLESS/STAINLESS
- STAINLESS/STEEL, COPPER/BRASS, COPPER/STEEL
- ALUMINUM/STEEL, ALUMINUM/ALUMINUM, STAINLESS/STAINLESS
- ALUMINUM/STEEL, STEEL/STEEL
- ALUMINUM/ALUMINUM
- STEEL/STEEL
- STEEL/STEEL, ALUMINUM/ALUMINUM, STAINLESS/STAINLESS
- ALUMINUM/STEEL
- STAINLESS/STEEL, ALUMINUM/ALUMINUM
- NYLON BODY, DELRIN 500 MANDREL

## Head Styles

BUTTONHEAD



LARGE FLANGE



COUNTERSUNK



## 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° COUNTERSUNK RIVETS FOR APPLICATIONS WHERE FLUSH APPEARANCE IS REQUIRED



# Design Information

## HFS Code Descriptions

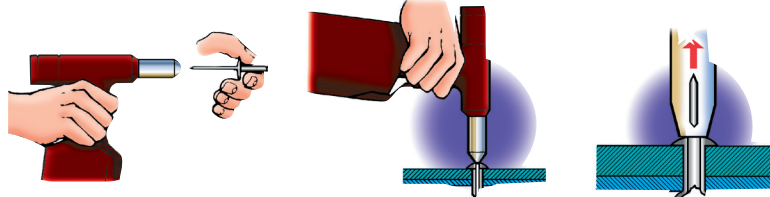
Example:	A — First Letter.....Rivet Material (A = Aluminum, S = Steel, C = Copper, SS = Stainless Steel)
ABL6-6A	B — Second Letter.....Style of Head (B = Buttonhead, C = Countersunk)
	L — Third Letter (if any).....Large Flange Head
	6 — First Number.....Body Diameter in 32nds
	6 — Second Number.....Maximum 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

- 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.
- 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.
- 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 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 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.
- Please visit us at [Hfsindustrial.com](http://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

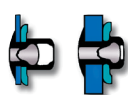


1 Insert rivet mandrel in rivet setting tool.

2 Using tool as a guide, insert rivet into prepared hole.

3 Or insert rivet into prepared hole and then engage the mandrel with rivet-setting tool. Squeeze trigger or handles to set rivet. Mandrel ejects after rivet is set.

## Blind Rivet Benefits



One Length Handles Both



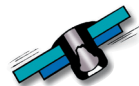
Hollow Extrusions and Tubes



High Grip Strength No Surface Distortion



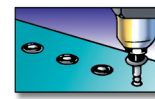
Hard and Soft Materials



Vibration and Tamper Resistant



High Strength



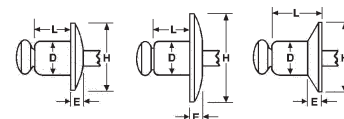
No Marred Surfaces



Low-Profile Heads



# Stainless Rivets



## Stainless Rivet • Stainless Mandrel • IFI Grade 51

BUTTONHEAD											
AFS DESCRIPTION	BULK PART No.**	GRIP RANGE		D RIVET DIA NOM INCH (MM)	DRILL No. AND HOLE SIZE (MM)	H HEAD DIA NOM INCH (MM)	E HEAD HEIGHT MAX INCH (MM)	L RIVET LENGTH MAX		TYPICAL ULTIMATE STRENGTH (LBS.) (NEWTONS)	
		INCH	(MM)					INCH	(MM)	SHEAR	TENSILE
SSB4-1S	M50411	.020-.062	5-1.6	1/8"(.125)	#30(.129-.133)	.250	.040	.212	5.4	520	600
SSB4-2S	M50412	.063-.125	1.7-3.2	3.2	(3.28-3.38)	6.35	1.02	.275	7.0	2310	2660
SSB4-3S	M50415	.126-.187	3.3-4.8					.337	8.6		
SSB4-4S	M50417	.188-.250	4.9-6.4					.400	10.2		
SSB4-5S	M50420	.251-.312	6.5-7.9					.462	11.7		
SSB4-6S	M50421	.313-.375	8.0-9.5					.525	13.4		
SSB4-8S	M50422	.376-.500	9.6-12.7					.650	16.5		
SSB5-2S	M50432	.020-.125	5-3.2	5/32"(.156)	#20(.160-.164)	.312	.045	.300	7.6	785	1040
SSB5-3S	M50434	.126-.187	3.3-4.8	4.0	(4.06-4.16)	7.92	1.14	.338	8.0	3490	4620
SSB5-4S	M50435	.188-.250	4.7-6.4					.425	10.8		
SSB5-6S	M50436	.251-.375	6.5-9.5					.550	14.0		
SSB5-8S	M50437	.376-.500	9.6-12.7					.675	17.2		
SSB5-10S	M50427	.501-.625	12.8-15.9					.800	20.3		
SSB6-2S	M50445	.020-.125	5-3.2	3/16"(.187)	#11(.192-.196)	.375	.066	.325	8.3	1150	1300
SSB6-4S	M50447	.126-.250	3.3-6.4	4.8	(4.88-4.98)	9.53	1.40	.450	11.5	5110	5780
SSB6-6S	M50449	.251-.375	6.5-9.5					.575	14.6		
SSB6-8S	M50450	.376-.500	9.6-12.7					.700	17.8		
SSB6-10S	M50457	.501-.625	12.8-15.9					.825	21.0		
SSB6-12S	M50458	.626-.750	16.0-19.1					.950	24.2		
SSB6-16S	M50466	.751-1.000	19.2-25.4					1.200	30.5		
SSB8-4S	M50481	.126-.250	3.3-6.4	1/4"(.250)	F(.257-.261)	.500	.074	.500	12.7	1700	2100
SSB8-6S	M50483	.251-.375	6.5-9.5	6.4	(6.53-6.63)	12.70	1.88	.625	15.9	7560	9340
SSB8-8S	M50485	.376-.500	9.6-12.7					.750	19.1		
SSB8-10S	M50487	.501-.625	12.8-15.9					.875	21.0		
SSB8-12S	M50489	.626-.750	16.0-19.1					1.000	25.4		
LARGE FLANGE											
SSBL4-2S	M50409	.063-.125	1.7-3.2	1/8"(.125)	#30(.129-.133)	.375	.045	.275	7.0	520	600
SSBL4-3S	M50416	.126-.187	3.3-4.8	3.2	(3.28-3.38)	9.53	1.14	.337	8.6	2310	2660
SSBL4-4S	M50418	.188-.250	4.9-6.4					.400	10.2		
SSBL6-4S	M50452	.126-.250	3.3-6.4	3/16"(.187)	#11(.192-.196)	.615	.082	.450	11.5	1150	1300
SSBL6-6S	M50453	.251-.375	6.5-9.5	4.8	(4.88-4.98)	15.88	2.08	.575	14.6	5110	5780
SSBL6-8S	M50456	.376-.500	9.6-12.7					.700	17.8		
SSBL6-10S	M50451	.501-.625	12.8-15.9					.825	21.0		
SSBL6-12S	M50455	.626-.750	16.0-19.1					.950	24.2		
120° COUNTERSUNK											
SSC4-2S	M50423	.063-.125	2.3-3.2	1/8"(.125)	#30(.129-.133)	.220	.031	.275	7.0	520	600
SSC4-3S	M50424	.126-.187	3.3-4.8	3.2	(3.28-3.38)	5.59	1.14	.337	8.6	2310	2660
SSC4-4S	M50425	.188-.250	4.9-6.4					.400	10.2		
SSC4-5S	M50426	.251-.312	6.5-7.9					.462	11.7		
SSC6-4S	M50429	.151-.250	3.8-6.4	3/16"(.187)	#11(.192-.196)	.350	.050	.407	10.3	1150	1300
				4.8	(4.88-4.98)	8.89	1.27			5110	5780

KLIK-FAST RIVETS CONFORM TO IFI-114 (INCH) AND IFI-505 (METRIC). MILLIMETERS (MM) AND NEWTONS (N) ARE IN GREEN. \*\* ALSO AVAILABLE IN VARIOUS PACKAGED QUANTITIES.