



Table of Contents

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.

INTRODUCTION	2
GENERAL INFORMATION — BLIND RIVETS	3
DESIGN INFORMATION	4
STEEL RIVETS	5
ALUMINUM RIVETS	6
ALUMINUM/STEEL RIVETS	7
STAINLESS RIVETS	8
STAINLESS/STEEL RIVETS	9
CLOSED-END RIVETS	10
MULTI-GRIP RIVETS	11
SPECIALTY RIVETS	12
COPPER/BRASS RIVETS	12
COPPER/STEEL RIVETS	12
TRI-BULB RIVETS	12
PAINTED RIVETS	12
BACK-UP WASHERS	12
STEEL Q-LOK RIVETS	13
T-RIVETS/KLIK-SPLIT®	13
AUTOMOTIVE/SPECIAL APPLICATION RIVETS	13
KLIK-LOCK™ RIVETS	14-15
PLASTIC RIVETS	16
PLASTIC RIVET TOOLS	17
HAND RIVET TOOLS AND KITS	18-19
AIR/HYDRAULIC AND BATTERY RIVET TOOLS	20-21
RIVETER CAPACITY CHART	22
AIR/HYDRAULIC TOOL DIMENSIONS	22
AIR/HYDRAULIC TOOL SPECIFICATIONS	22
RIVET NUT INTRODUCTION	23
GENERAL INFORMATION – RIVET NUTS	24
MRN SERIES	25
MPN/MTS SERIES	26
MLR SERIES	27
MLC SERIES	28
MSR SERIES	29
MSC SERIES	30
MHN SERIES	31
MQN/MXN SERIES	32
MET SERIES	33
MNN SERIES	34
RIVET NUT TOOLS AND KITS	35-40
CONVERSION CHART	41

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

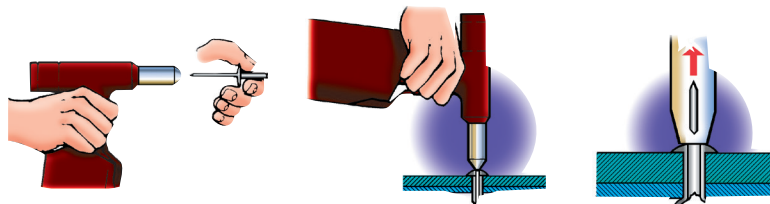
Example:	A — First Letter.....Rivet Material (A = Aluminum, S = Steel, C = Copper, SS = Stainless Steel)
ABL6-6A	B — Second Letter.....Style of Head (B = Buttonhead, C = Countersunk)
	L — Third Letter (if any).....Large Flange Head
	6 — First Number.....Body Diameter in 32nds
	6 — Second Number.....Maximum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

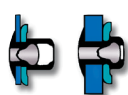


1 Insert rivet mandrel in rivet setting tool.

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



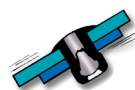
Hollow Extrusions and Tubes



High Grip Strength No Surface Distortion



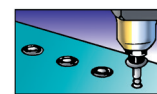
Hard and Soft Materials



Vibration and Tamper Resistant



High Strength



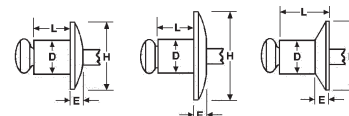
No Marred Surfaces



Low-Profile Heads



Aluminum Rivets



5052 Aluminum Rivet • Aluminum Mandrel • IFI Grade 11

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
AB3-2A	M50200	.020-.125	5-3.2	3/32"(.094)	#41 (.097-.100)	.188	.032	.250	6.4	80	120
AB3-4A	M50202	.126-.250	3.3-6.4	2.4	(2.46-2.54)	4.78	.810	.375	9.5	355	533
AB4-1A	M50211	.020-.062	5-1.6	1/8"(.125)	#30 (.129-.133)	.250	.040	.212	5.4	155	240
AB4-2A	M50212	.063-.125	1.7-3.2	3.2	(3.28-3.38)	6.35	1.02	.275	7.0	689	1067
AB4-3A	M50215	.126-.187	3.3-4.8					.337	8.6		
AB4-4A	M50217	.188-.250	4.9-6.4					.400	10.2		
AB4-5A	M50220	.251-.312	6.5-7.9					.462	11.7		
AB4-6A	M50221	.313-.375	8.0-9.5					.525	13.4		
AB4-8A	M50222	.376-.500	9.6-12.7					.650	16.5		
AB4-10A	M50225	.501-.625	12.8-15.9					.775	19.7		
AB5-2A	M50232	.020-.125	5-3.2	5/32"(.156)	#20 (.160-.164)	.312	.050	.300	7.6	230	340
AB5-3A	M50234	.126-.187	3.3-4.8	4.0	(4.06-4.16)	7.92	1.27	.362	9.2	1023	1512
AB5-4A	M50235	.188-.250	4.9-6.4					.425	10.8		
AB5-6A	M50236	.251-.375	6.5-9.5					.550	14.0		
AB5-8A	M50237	.376-.500	9.6-12.7					.675	17.2		
AB5-10A	M50238	.501-.625	12.8-17.1					.800	20.3		
AB5-12A	M50239	.626-.750	17.2-19.1					.925	23.5		
AB6-2A	M50245	.020-.125	5-3.2	3/16"(.187)	#11 (.192-.196)	.375	.060	.325	8.3	330	515
AB6-4A	M50247	.126-.250	3.3-6.4	4.8	(4.88-4.98)	9.53	1.52	.450	11.5	1467	2290
AB6-6A	M50249	.251-.375	6.5-9.5					.575	14.6		
AB6-8A	M50252	.376-.500	9.6-12.7					.700	17.8		
AB6-10A	M50255	.501-.625	12.8-15.9					.825	21.0		
AB6-12A	M50259	.626-.750	16.0-19.1					.950	24.2		
AB6-14A	M50263	.751-.875	19.2-22.2					1.075	27.3		
AB6-16A	M50266	.876-1.000	22.3-25.4					1.200	30.5		
AB8-4A	M50281	.126-.250	3.3-6.4	1/4"(.250)	F(.257-.261)	.500	.080	.500	12.7	600	800
AB8-6A	M50283	.251-.375	6.5-9.5	6.4	(6.53-6.63)	12.70	1.88	.625	15.9	2668	3558
AB8-8A	M50285	.376-.500	9.6-12.7					.750	19.1		
AB8-10A	M50287	.501-.625	12.8-15.9					.875	21.0		
AB8-12A	M50289	.626-.750	16.0-19.1					1.000	25.4		
AB8-14A	M50288	.751-.875	19.2-22.2					1.125	28.6		
LARGE FLANGE											
ABL4-2A	M50214	.063-.125	1.7-3.2	1/8"(.125)	#30 (.129-.133)	.375	.065	.275	7.0	155	240
ABL4-3A	M50224	.126-.187	3.3-4.8	3.2	(3.28-3.38)	9.53	1.14	.337	8.6	689	1067
ABL4-4A	M50219	.188-.250	4.9-6.4					.400	10.2		
ABL4-6A	M50226	.313-.375	8.0-9.5					.525	13.3		
ABL4-8A	M50227	.376-.500	9.6-12.7					.650	16.5		
ABL5-4A	M50244	.188-.250	4.9-6.4	5/32"(.156)	#20 (.160-.164)	.468	.070	.425	10.8	230	340
				4.0	(4.06-4.16)	11.90	1.20			1023	1512
ABL6-4A	M50248	.126-.250	3.3-6.4	3/16"(.187)	#11 (.192-.196)	.615	.090	.450	11.5	330	515
ABL6-6A	M50250	.251-.375	6.5-9.5	4.8	(4.88-4.98)	15.88	2.28	.575	14.6	1467	2290
ABL6-8A	M50253	.376-.500	9.6-12.7					.700	17.8		
ABL6-10A	M50256	.501-.625	12.8-15.9					.825	21.0		
ABL6-12A	M50260	.626-.750	16.0-19.1					.950	24.2		
ABL6-16A	M50267	.875-1.00	22.2-25.4					1.200	30.5		
120° COUNTERSUNK											
AC4-2A	M50213	.092-.125	2.3-3.2	1/8"(.125)	#30 (.129-.133)	.220	.031	.275	7.0	155	240
AC4-3A	M50216	.126-.187	3.3-4.8	3.2	(3.28-3.38)	5.59	1.14	.337	8.6	689	1050
AC4-4A	M50218	.188-.250	4.9-6.4					.400	10.2		
AC4-6A	M50241	.313-.375	8.0-9.5					.525	13.3		
AC5-4A	M50240	.188-.250	4.9-6.4	5/32"(.156)	#20 (.160-.164)	.281	.040	.425	10.8	230	340
AC5-6A	M50242	.313-.375	8.0-9.5	4.0	(4.06-4.16)	7.20	1.20	.550	14.0	1020	1512
AC6-4A	M50251	.151-.250	3.8-6.4	3/16"(.187)	#11 (.192-.196)	.350	.050	.407	10.3	330	515
AC6-6A	M50229	.251-.375	6.5-9.5	4.8	(4.88-4.98)	8.89	1.27	.575	14.6	1467	2290
AC6-8A	M50246	.376-.500	9.6-12.7					.700	17.8		