



**HOWMET
AEROSPACE**

Magna-Lok[®]

The World's Most
Reliable Blind Fastening
System



Huck® Magna-Lok®

The Hole-Filling Fastener with Mechanical Circle Lock and Wide Grip Range

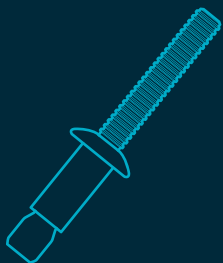
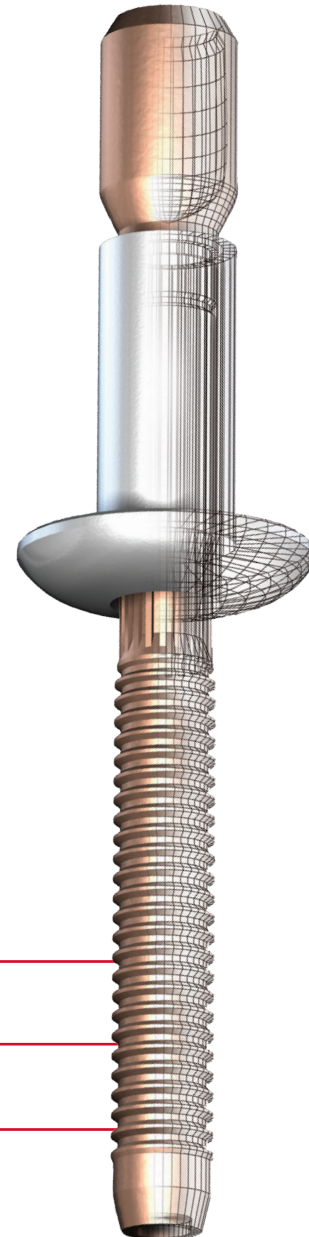
The 360° solid-circle lock. It's Howmet Fastening System's answer to loosening and vibration challenges. It's the reason Magna-Lok® is the world's strongest, most reliable, most consistent blind fastening solution available. The unique locking design creates an internal lock during installation that virtually eliminates pin pushout by mechanically locking the pin to the sleeve. So Magna-Lok fasteners reliably lock flush into place. Permanently.

In lab shear fatigue tests, steel Magna-Lok fasteners substantially outlasted competitors' products. We have engineered industry-leading strength and durability into Magna-Lok with a mechanical circle-lock design that gives this structural blind rivet a tough, long-lasting joint with a tight, weather-resistant seal. This shield blocks out water and salt, ensuring a long, reliable life.

Available Sizes 3/16", 1/4", 3/8", 1/2"

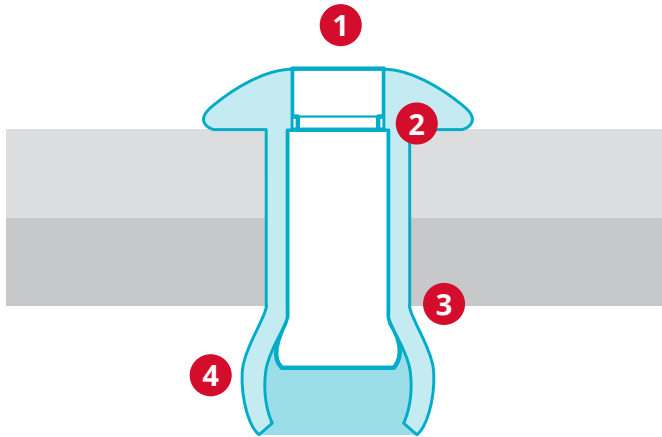
Materials Steel, Aluminum, Stainless Steel

Headstyles Protruding, Truss, 100° Flush

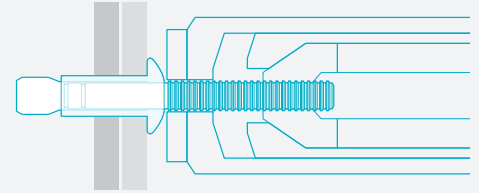


- ✓ Unmatched installation speed
- ✓ Low overall installed cost
- ✓ Vibration resistance
- ✓ Weather-resistant seal
- ✓ Quiet non-torque tools
- ✓ No repetitive stress injuries
- ✓ Eliminates need for secondary operations
- ✓ No special training or skills required for operators

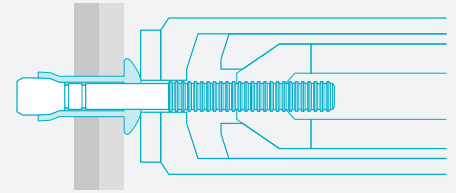
Secure, Fast Installation



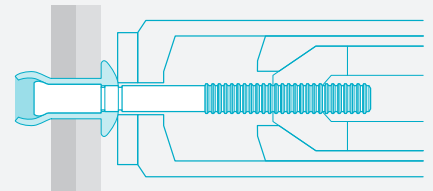
- 1 Flush pin break eliminates grinding and filling, leaving an even surface.
- 2 Unique, solid-circle lock ensures maximum strength and vibration resistance. The potential for pin push-out is virtually eliminated.
- 3 Excellent gap pull-out and high retained clamp.
- 4 Sleeve expands during installation to fill the hole and create a moisture-resistant joint.



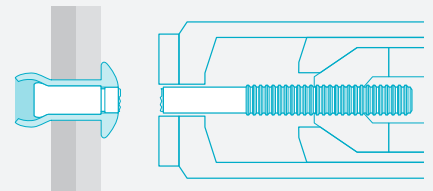
- 1 Insert the fastener into the hole and slip the installation tool over the pintail.



- 2 Press the trigger to initiate pulling action. As the tool pulls on the pintail, the pin (mandrel) expands the sleeve and begins drawing the work pieces together.

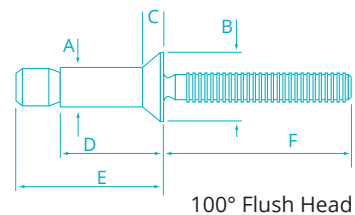
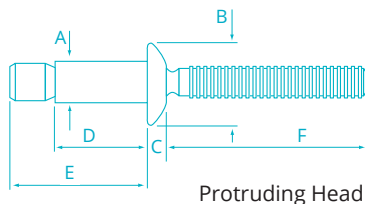
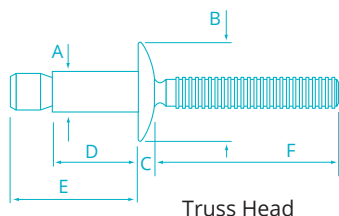


- 3 Continued pulling on the pintail draws the hollow pin head inside sleeve. The pin expands inside the sleeve and the work pieces, to completely fill the hole of the work pieces.



- 4 A solid circle lock between the pin and sleeve is formed just prior to the pin breaking flush with the sleeve head, completing the installation.

Data and Dimensions



Protruding Head Dimensions

DIA.	STEEL (R)	ALUMINUM (B)	STAINLESS (U)	GRIP RANGE	HOLE SIZE	A NOM	B MAX	C MAX	D MAX	E MAX	F MIN
6 (3/16")	MGLP-R6-4	MGLP-B6-4	MGLP-U6-4	.062 - .270	.191 - .201	.187	.385/ .392(U)	.085/ .101(U)	.415	.733/ .728(U)	.980/ .969(U)
	MGLP-R6-7	MGLP-B6-7	MGLP-U6-7	.214 - .437	.191 - .201	.187	.385/ .392(U)	.085/ .101(U)	.582	.892/ .889(U)	0.968/ .955(U)
	MGLP-R6-E	MGLP-B6-E	MGLP-U6-E	.062 - .437	.191 - .201	.187	.385/ .392(U)	.085/ .101(U)	.582	1.031/ 1.026(U)	.991/ .98(U)
	MGLP-R6-10	-	MGLP-U6-10	.455 - .665	.191 - .201	.187	.385/ .392(U)	.085/ .101(U)	.810	1.106	.941/ .925 (U)
8 (1/4")	MGLP-R8-6	MGLP-B8-6	MGLP-U8-6	.080 - .375	.261 - .272	.253	.530	.120	.560	.984	1.043/ 1.046(B)
	MGLP-R8-10	MGLP-B8-10	MGLP-U8-10	.350 - .625	.261 - .272	.253	.530	.120	.810	1.234	1.043/ 1.046(B)
	MGLP-R8-14	MGLP-B8-14	-	.580 - .875	.261 - .272	.253	.530	.120	1.060	1.484	1.043/ 1.046(B)
	-	-	MGLP-316U8-6	.080 - .375	.261 - .272	.253	.525	.127	.560	.995	1.0
	-	-	MGLP-316U8-10	.350 - .625	.261 - .272	.253	.525	.127	.810	1.245	1.0
	MGLP-R8-18	-	-	.830 - 1.125	.261 - .272	.253	.530	.120	1.310	1.734	1.043
	MGLP-R8-22	MGLP-B8-22	-	1.080 - 1.375	.261 - .272	.253	.530	.120	1.560	1.984	1.295
	MGLP-R8-E	MGLP-B8-E	MGLP-U8-E	.080 - .625	.261 - .272	.253	.530	.120	.810	1.419/ 1.415(B)	1.043/ 1.048(B)
12 (3/8")	MGLP-R12-12	MGLP-B12-12	MGLP-4U12-12	.120 - .625	.392 - .408	.386	.793	.175	.845	1.476	1.545
	MGLP-R12-18	MGLP-B12-18	MGLP-4U12-18	.625 - 1.125	.392 - .408	.386	.793	.175	1.410	2.101	1.475
16 (1/2")	MGLP-R16-12	MGLP-B16-12	-	.160 - .750	.531 - .563	.514	1.060	.240	1.406	2.268	1.208

Truss Head Dimensions

6 (3/16")	MGLT-R6-4	MGLT-B6-4	MGLT-U6-4	.062 - .270	.191 - .201	.187	.530	.095/ .104(U)	.415	.733	.973/ .964(U)
	MGLT-R6-7	MGLT-B6-7	MGLT-U6-7	.214 - .437	.191 - .201	.187	.530	.095/ .104(U)	.582	.892	.961/ .952(U)
	MGLT-R6-E	MGLT-B6-E	-	.062 - .437	.191 - .201	.187	.530	.095	.582	1.031	.984
8 (1/4")	MGLT-R8-6	MGLT-B8-6	MGLT-U8-6	.080 - .375	.261 - .272	.253	.592	.120	.560	.984	1.043/ 1.046(B)
	MGLT-R8-10	MGLT-B8-10	MGLT-U8-10	.350 - .625	.261 - .272	.253	.592	.120	.810	1.234	1.043/ 1.046(B)
	MGLT-R8-E	MGLT-B8-E	-	.080 - .625	.261 - .272	.253	.592	.120	.810	1.419	1.043/ 1.046(B)

100° Flush Head Dimensions

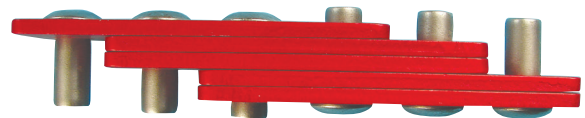
DIA.	STEEL (R)	ALUMINUM (B)	STAINLESS (U)	GRIP RANGE	HOLE SIZE	A NOM	B MAX	C MAX	D MAX	E MAX	F MIN
6 (3/16")	MGL100-R6-6	MGL100-B6-6	MGL100-U6-6	.125 - .331	.191 - .201	.187	.350	.080	.490	.809/.804(U)	.987/.992(U)
	MGL100-R6-9	MGL100-B6-9	MGL100-U6-9	.305 - .500	.191 - .201	.187	.350	.080	.660	.968/.965(U)	.975/.978(U)
8 (1/4")	MGL100-R8-8	MGL100-B8-8	MGL100-U8-8	.160 - .475	.261 - .272	.253	.410	.090	.665	1.089/1.085(U)	1.055/1.058(B)/1.059(U)
	MGL100-R8-12	MGL100-B8-12	MGL100-U8-12	.415 - .725	.261 - .272	.253	.410	.090	.915	1.339/1.335(U)	1.055/1.058(B)/1.059(U)
	MGL100-R8-E16.4	-	-	.470 - 1.000	.261 - .272	.253	.410	.090	1.185	1.798	1.154
12 (3/8")	MGL100-R12-12	MGL100-B12-12	-	.240 - .750	.392 - .408	.386	.632	.134	1.030	1.662	1.533
	MGL100-R12-20	MGL100-B12-20	-	.740 - 1.250	.392 - .408	.386	.632	.134	1.530	2.222	1.528
16 (1/2")	MGL100-R16-12	MGL100-B16-12	-	.375 - .750	.531 - .563	.514	.870	.197	1.360	2.206	1.503

Installed Values in Nominal Grip

MATERIAL	DIA.	SHEAR		TENSILE		PIN RETENTION	
		MIN	TYPICAL	MIN	TYPICAL	MIN	TYPICAL
Steel 4U Series Stainless	6 (3/16")	1300	1450	1000	1200	150	250
	8 (1/4")	2500	2750	1850	2200	300	400
	12 (3/8")	6000	6300	4000	5000	600	1000
	16 (1/2")	10000	11200	7000	9400	1000	1700
Aluminum	6 (3/16")	600	700	500	580	75	150
	8 (1/4")	1300	1300	890	950	100	220
	12 (3/8")	2950	3000	1900	2100	250	450
	16 (1/2")	5100	5400	4100	4300	400	800
300 Series Stainless 430 Series Stainless	6 (3/16")	1300	1400	950	1100	100	125
	8 (1/4")	2350	2500	1800	2000	200	250

The Grip Range View

For applications requiring a wide grip range, or multiple applications with similar requirements, the extended-grip Magna-Lok is capable of spanning the range of several conventional blind rivets. This versatility can eliminate as many as six standard rivets, reducing inventory, rework, and cost. Shown here, the MGLP-R8-E performs perfectly at .080 inch or .625 inch.



The Installed View

Magna-Lok's internal 360° solid-circle lock ensures a flush pin break each and every time. This unique feature also assures a uniform blind-side footprint throughout the grip range. Combined with the hole filling feature, the Magna-Lok produces consistent mechanical values.



Ordering Information

Follow the form below to construct a part number for ordering Huck Magna-Lok blind fasteners. Refer to the Grip Data chart for grip numbers.

MGL (HEAD STYLE) - (MATERIAL) (DIAMETER) - (GRIP NUMBER)

Example: MGLP-R6-4 is a Protruding Head Magna-Lok, Steel, 3/16" Diameter.

HEAD STYLE	PREFIX
Protruding Head	P
Truss Head	T
100° Flush Head	100

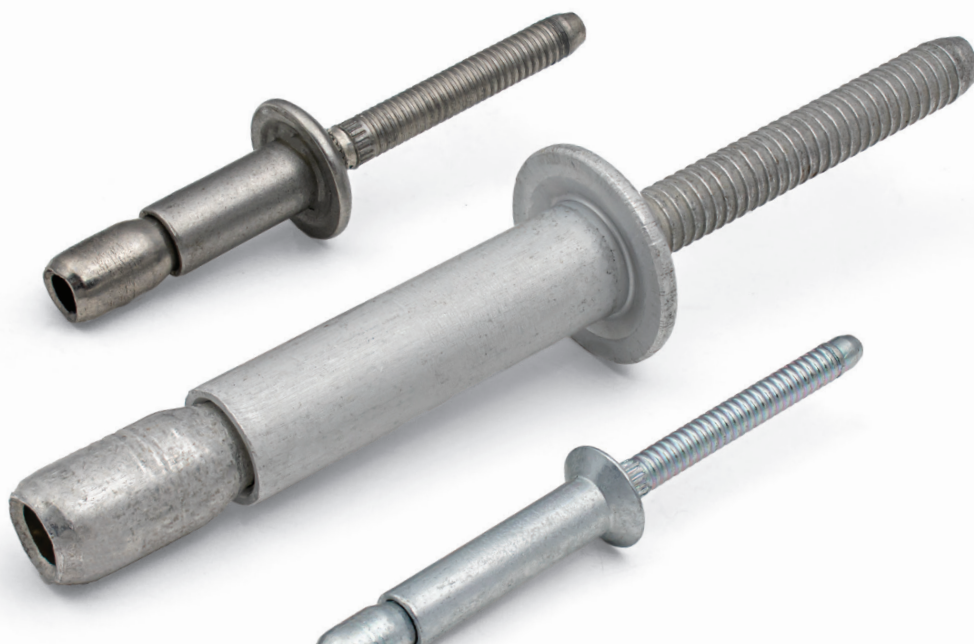
MATERIAL	CODE
Steel	R
Aluminum	B
Stainless Steel	U
430 Stainless Steel	4U
316 Stainless Steel	316U

DIA.	CODE
3/16"	6
1/4"	8
3/8"	12
1/2"	16

Materials and Finishes

MATERIAL	SLEEVE	PIN	SLEEVE FINISH*	PIN FINISH*	CODE
Steel	Low Carbon Steel	Medium Carbon Steel	Zinc Plated Clear Chromate	Zinc Plated Clear Chromate	R
Aluminum	5000 Series	7000 Series	Clear Chromate	Clear Chromate	B
Stainless Steel	300 Series	300 Series	Passivated	Dry Lubricated	U
400 Series Stainless Steel	430 Series	300 Series	Passivated	Dry Lubricated	430U
400 Series Stainless Steel	430 Series	410 Series	Passivated	Dry Lubricated	4U

*Contact us for other available/possible finishes.



Installation Tooling

Installation Tools

SIZE	PNEUDRAULIC TOOLS				BATTERY TOOLS		HYDRAULIC TOOLS			
	MODEL									
	256	2015	2022	2024	BV4500		2480	2583	2581	2620-PT
	NOSE ASSEMBLY									
3/16"	99-3327	Included	99-3303	99-3303	99-3303		99-3303	99-3327	99-3327	–
3/16" & 1/4"	–	–	99-3487*	99-3487*	99-3487*		99-3487*	–	–	–
1/4"	99-3328	Included**	99-3305	99-3305	99-3305		99-3305	99-3328	99-3328	–
3/8"	99-3318	–	–	–	–		–	99-3318	99-3318	–
1/2"	–	–	–	–	–		–	99-3330**	–	99-3331***

* Not for high volume installation. ** Not for use with steel fasteners—aluminum only. *** Recommended for steel fasteners only.



Tooling Weight and Dimensions

MODEL	TYPE	WEIGHT	LENGTH	HEIGHT	WIDTH
256	Pneudraulic	11.1 lbs	7.8"	14.9"	6.1"
2015	Pneudraulic	4.9 lbs	10.6"	12"	3.5"
2022	Pneudraulic	5.4 lbs	9.2"	12.5"	4.4"
2024*	Pneudraulic	5.75 lbs	8.9"	12.6"	4.4"
BV4500	Battery	5lbs	9.06"	9.42"	3.15"
2480	Hydraulic	2.2 lbs	8.6"	6.5"	1.9"
2583	Hydraulic	4.6 lbs	9.4"	7.3"	2.0"
2581	Hydraulic	5.5 lbs	8.4"	7.1"	2.1"
2620-PT	Hydraulic	10.0 lbs	10.2"	7"	2.8"



Howmet Fastening Systems

Industrial Division Brands



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