



ARCONIC

Magna-Lok[®] The World's Most Reliable Blind Fastening System

Solid Circle Lock
Fast Installation
Vibration Resistant

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



HUCK[®]

Huck® Magna-Lok

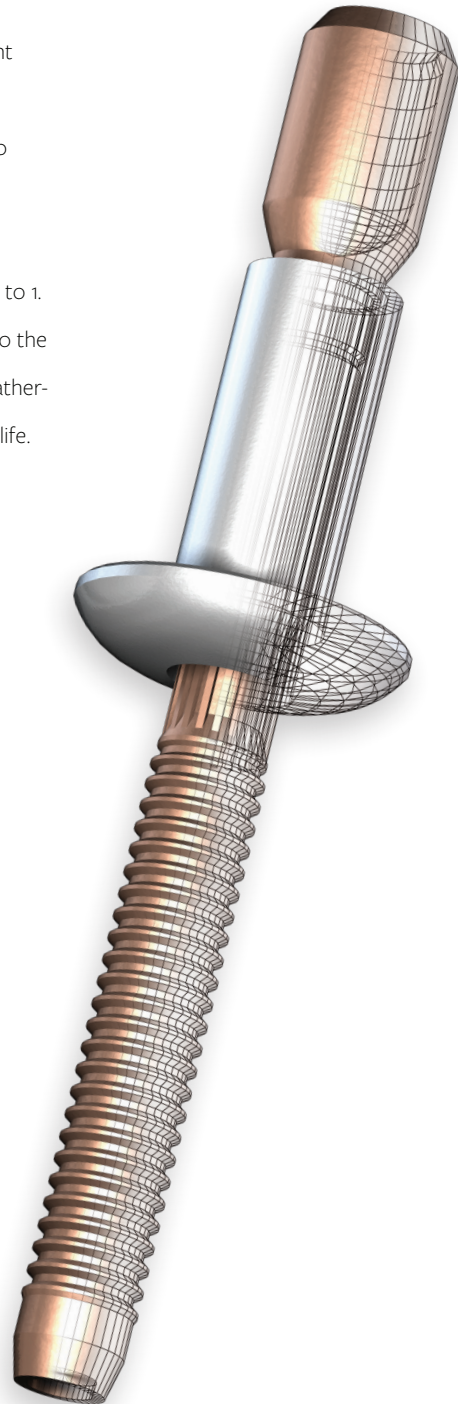
For a Variety of Applications, Nothing Else Will Do

The 360° solid-circle lock. It's Arconic Fastening System and Rings' answer to loosening and vibration challenges. And it's the reason Magna-Lok® is the world's 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 lock flush into place reliably. Permanently.

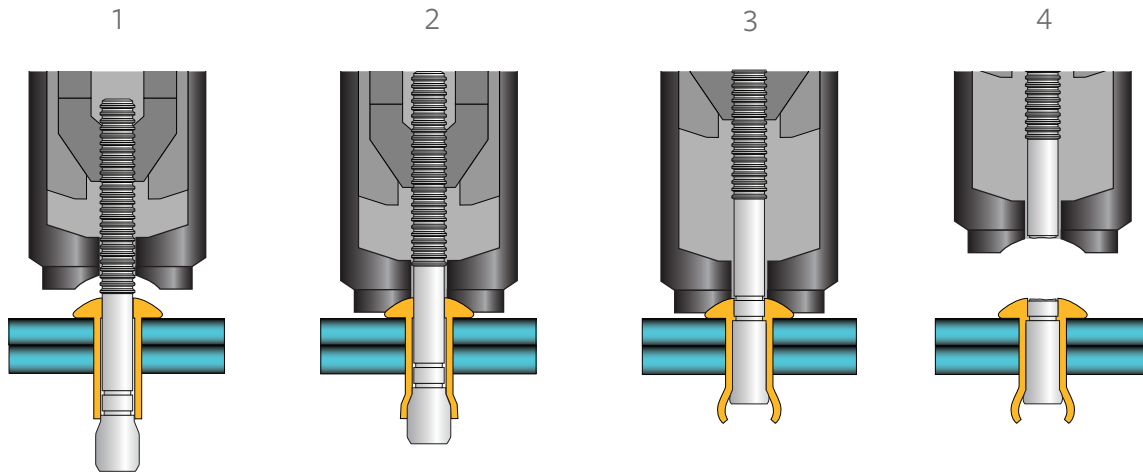
In lap shear fatigue tests, steel Magna-Lok fasteners outlasted the nearest competitor nearly 20 to 1. Ours lasted 2 million cycles, while theirs lasted only 100,000. In addition, this strength extends to the solid-circle lock design. The expanding sleeve creates a tough, long-lasting joint with a tight, weather-resistant seal. This shield blocks out water and salt, further ensuring the fastener's long, reliable life.

Magna-Lok Benefits

- 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



Installation Sequence



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

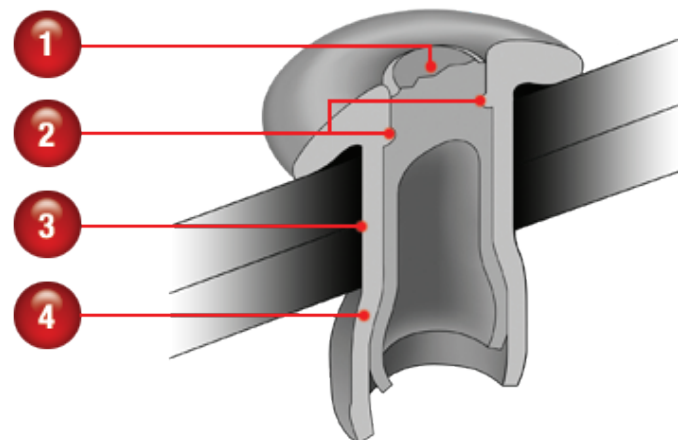
2
Press the trigger to initiate pulling action. As the tool pulls on the pintail, the pin (mandrel) expands the sleeve and begins drawing the work pieces together.

3
Continued pulling on the pintail draws the hollow pin head inside sleeve. The pin extrudes itself inside the sleeve and the work pieces completely expand the sleeve to match 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.

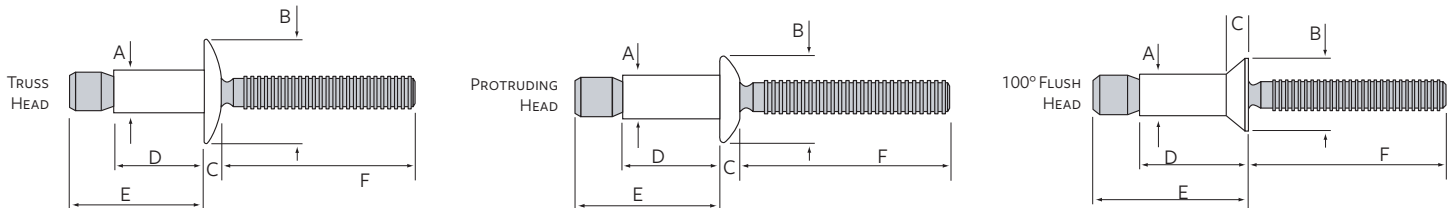
Secure, Fast Installation

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



Data and Dimensions

Head Style Options



Protruding Head Dimensions

DIAMETER	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)	.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

DIAMETER	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")	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	-	.080-.375	.261-.272	.253	.592	.120	.560	.984	1.043/1.046(B)
	MGLT-R8-10	MGLT-B8-10		.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

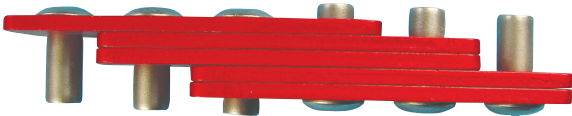
DIAMETER	STEEL (R)	ALUMINUM (B)	STAINLESS (U)	GRIP RANGE	HOLE SIZE	A NOM	B MAX	C MAX	D MAX	E MAX	F MIN
6(3/16")	MGL100-R6-6	MGL100-B6-6	MGL100-U6-6	.125-.331	.191-.201	.187	.350	.080	.490	.809.804(U)	.987/.992(U)
	MGL100-R6-9	MGL100-B6-9	MGL100-U6-9	.305-.500	.191-.201	.187	.350	.080	.660	.968/.965(U)	.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

Installation

Installed Values in Nominal Grip							
MATERIAL	DIAMETER	SHEAR		TENSILE		PIN RETENTION	
		MIN	TYPICAL	MIN	TYPICAL	MIN	TYPICAL
STEEL	6 (3/16")	1300	1450	1000	1200	150	250
	8 (1/4")	2500	2750	1850	2200	300	400
	10 (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	6 (3/16")	1300	1400	950	1100	100	125
	8 (1/4")	2350	2500	1800	2000	200	250

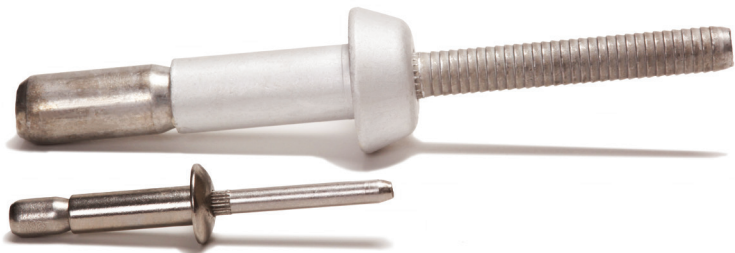
The Grip Range View

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.



Huck Magna-Lok Installation Tooling

Installation Tools										
PNEUDRAULIC TOOLS							HYDRAULIC TOOLS			
TOOL MODEL	SIZE	254/256	2015	2022	2024	2025	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**						99-3330**	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	
254	PNEUDRAULIC	8.7 LBS	8.1"	14.9"	5.0"	
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"	
2025	PNEUDRAULIC	5.75 LBS	8.4"	12.5"	4.4"	
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"	

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.

Ordering Information

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

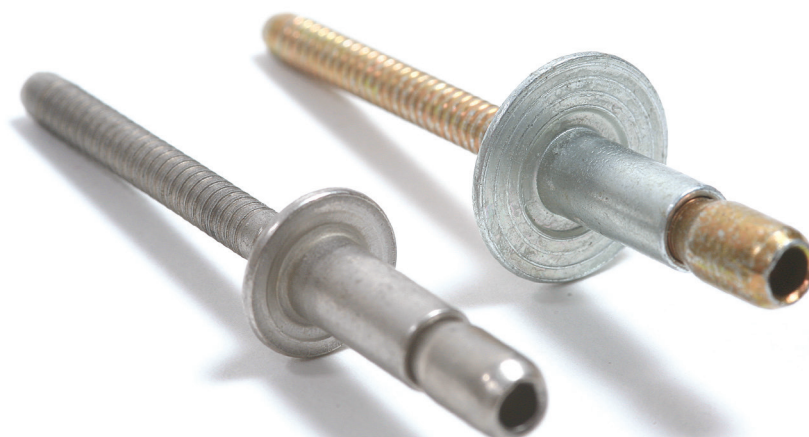
MATERIAL	CODE
STEEL	R
ALUMINUM	B
STAINLESS STEEL	U
430 STAINLESS STEEL	4U
316 STAINLESS STEEL	316U

DIAMETER	CODE
3/16"	6
1/4"	8
3/8"	12
1/2"	16
1/4"	8

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 Manufacturer for other available/possible finishes.



Arconic Fastening Systems and Rings



Arconic Inc. (NYSE: ARNC) creates breakthrough products that shape industries, providing solutions to complex engineering challenges to transform the way we fly, drive, build, and power. Combining ingenuity and advanced manufacturing, we deliver products that meet the challenges and demands faced by our customers.

Arconic Fastening Systems and Rings, formerly Alcoa Fastening Systems & Rings, is a global leader in fastening technology. Offering the greatest breadth and depth of fastening system solutions in the industry, Arconic continues to reflect the same commitment to product quality and support that customers have come to expect. To serve its growing market, Arconic Fastening Systems and Rings maintains corporate offices worldwide. In addition, Arconic distributors are located in many key industrial centers throughout the world, providing a ready supply of fasteners, installation tools, tool parts, and application assistance.

Americas

Waco Operations
8001 Imperial Drive
Waco, TX 76712, USA
P.O. Box 8117
Waco, TX 76714-8117, USA
Tel: +1 800 388 4825
Fax: +1 800 798 4825

Kingston Operations
1 Corporate Drive
Kingston, NY 12401, USA
Tel: +1 800 278 4825
Fax: +1 845 334 7333

Tracy Operations
1925 North MacArthur Drive
Tracy, CA 95376, USA
Tel: +1 800 826 2884
Fax: +1 800 573 2645

Carmel Operations
14300 Clay Terrace Blvd.
Suite 250
Carmel, IN 46032, USA
Tel: +1 800 826 2884
Fax: +1 800 573 2645

Tacubaya Operations
Avenida Parque Lira
79-402 Tacubaya
Mexico C P 11850
Tel: +52 55 5515 1776
Fax: +52 55 5277 7564

São Paulo Operations
Av. Nações Unidas, 12.901
Torre Oeste, 3º andar
São Paulo – SP – Brasil
04578-000
Tel: +55 0800 015 9888
Fax: +55 11 5509 0200

International Locations

Kolkata Operations
Unit no. 28, Chowringhee Court
55/1, Chowringhee Road
Kolkata – 700071
India
Tel: +91 33 4069 9170/80
Fax: +91 33 4069 9184

Tokyo Operations
Alcoa Japan Ltd.
#1013 NBF Hibiya Bldg.Uchisaiwai-cho,
Chiyoda-ku
Tokyo 100-1011
Japan
Tel: +81 3 3539 6577
Fax: +81 3 3539 6585

Melbourne Operations
1508 Centre Road
Clayton, Victoria, 3168
Australia
Tel: +61 3 8545 3333
Fax: +61 3 8545 3390

Suzhou Fasteners Operations
58 Yinsheng Road, Shengpu
Suzhou Industrial Park
Suzhou Jiangsu 215126
China
Tel: +86 0512 62863800-8888
Fax: +86 0512 62863810

Telford Operations
Unit C, Stafford Park 7
Telford, Shropshire TF3, 3BQ
United Kingdom
Tel: +44 1952 2900 11
Fax: +44 1952 2904 59

St. Cosme Operations
9 rue de Cressonnieres
72110 Saint Cosme en Varais
France
Tel: +33 0 2 43 31 41 00
Fax: +33 0 2 43 31 41 41

Kelkheim Operations
Industriestr. 6
65779 Kelkheim
Germany
Tel: +49 (0) 6195 8050
Fax: +49 (0) 6195 2001



afsrhuck.net
[YouTube.com/AFSIndustrial](https://www.youtube.com/AFSIndustrial)

The information contained in this publication is only for general guidance, and is not intended to create any warranty, express, implied, or statutory; all warranties are contained only in AFSR's written quotations, acknowledgments, and/or purchase orders. It is recommended that the user secure specific, up-to-date data and information regarding each application and/or use of such products.

