



Magna-Lok[®]

The World's Most
Reliable Blind Fastening
System

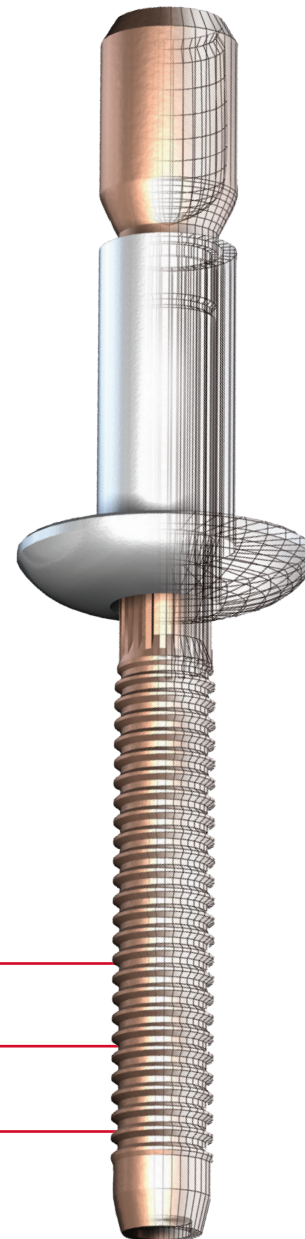


Huck® Magna-Lok®

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.

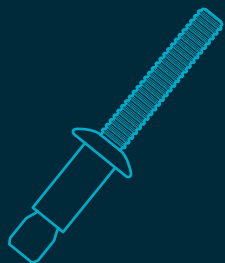
In lab shear fatigue tests, steel Magna-Lok fasteners substantially outlasted competitors' products. We have engineered industry-leading strength and durability into Magna-Lok with a mechanical circle-lock design that gives this structural blind rivet a tough, long-lasting joint with a tight, weather-resistant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



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

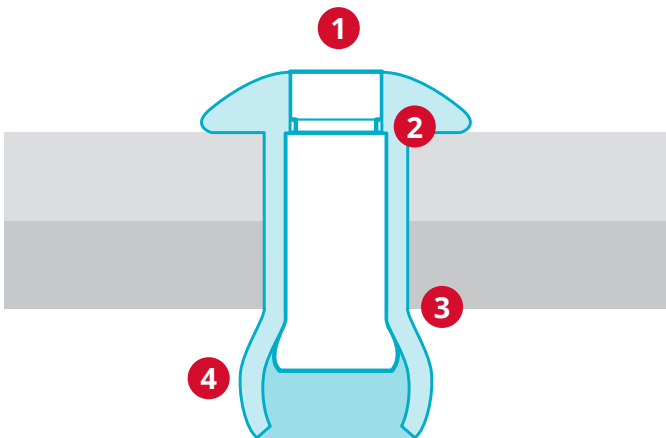
Materials Steel, Aluminum, Stainless Steel

Headstyles Protruding, Truss, 100° Flush

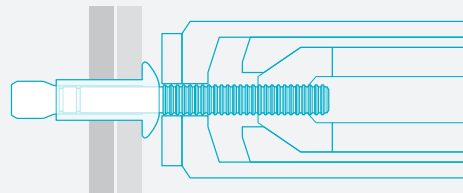


- ✓ Unmatched installation speed
- ✓ Low overall installed cost
- ✓ Vibration resistance
- ✓ Weather-resistant seal
- ✓ Quiet non-torque tools
- ✓ No repetitive stress injuries
- ✓ Eliminates need for secondary operations
- ✓ No special training or skills required for operators

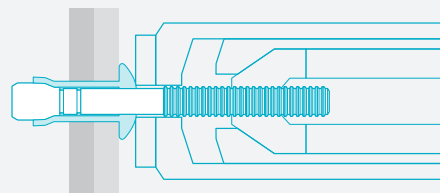
Secure, Fast Installation



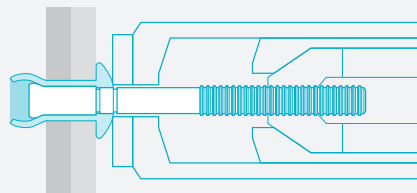
- 1 Flush pin break eliminates grinding and filling, leaving an even surface.
- 2 Unique, solid-circle lock ensures maximum strength and vibration resistance. The potential for pin push-out is virtually eliminated.
- 3 Excellent gap pull-out and high retained clamp.
- 4 Sleeve expands during installation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



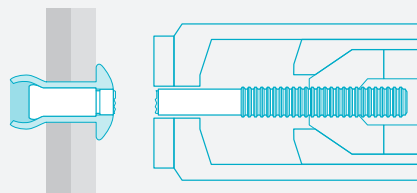
- 1 Insert the fastener into the hole and slip the installation tool over the pintail.



- 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.

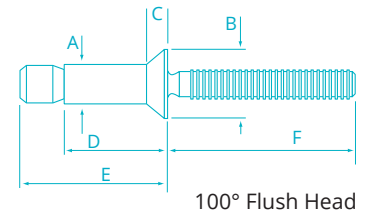
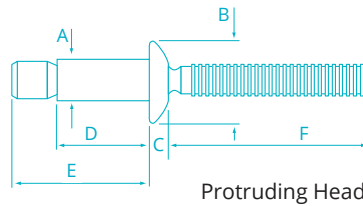
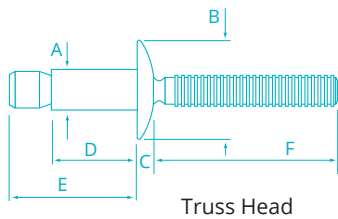


- 3 Continued pulling on the pintail draws the hollow pin head inside sleeve. The pin expands inside the sleeve and the work pieces, to completely fill the hole of the work pieces.



- 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

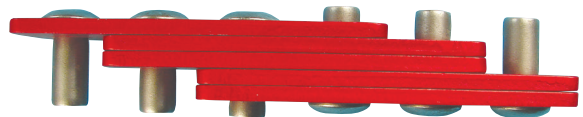
| DIA. | STEEL (R) | ALUMINUM (B) | STAINLESS (U) | GRIP RANGE | HOLE SIZE | A NOM | B MAX | C MAX | D MAX | E MAX | F MIN |
|--------------|-----------------|---------------|---------------|--------------|-------------|-------|-------|-------|-------|--------------------|-----------------------------|
| 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 |

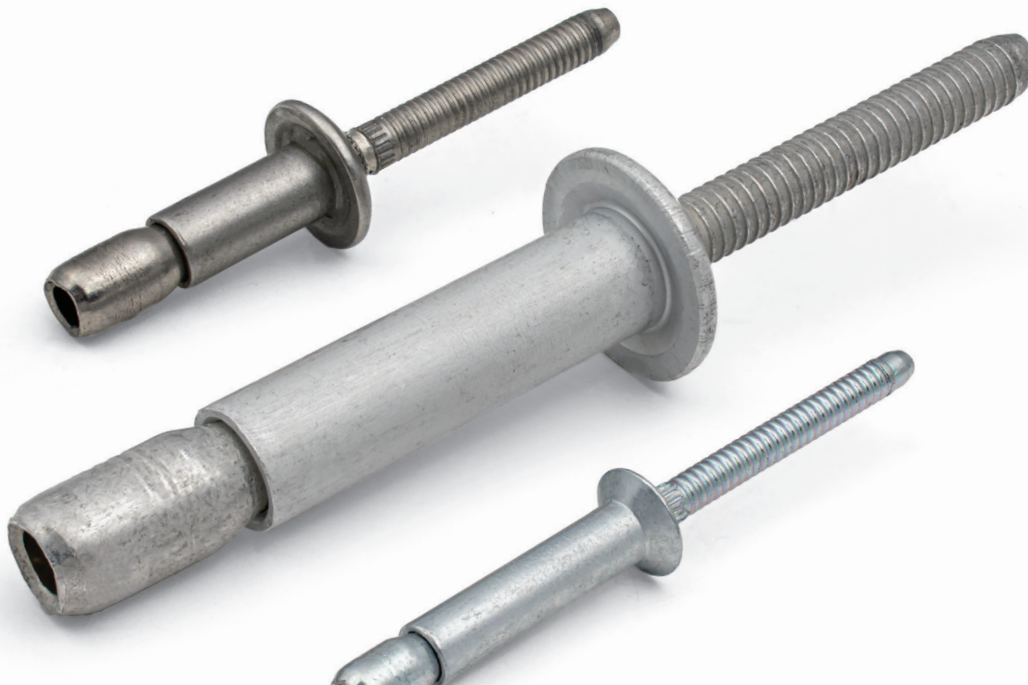
| MATERIAL | CODE |
|---------------------|------|
| Steel | R |
| Aluminum | B |
| Stainless Steel | U |
| 430 Stainless Steel | 4U |
| 316 Stainless Steel | 316U |

| 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 Manufacturer 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
AEROSPACE**

Howmet Fastening Systems

Industrial Division Brands



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hfsindustrial.com

[YouTube.com/HFSIndustrial](https://www.youtube.com/HFSIndustrial)

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