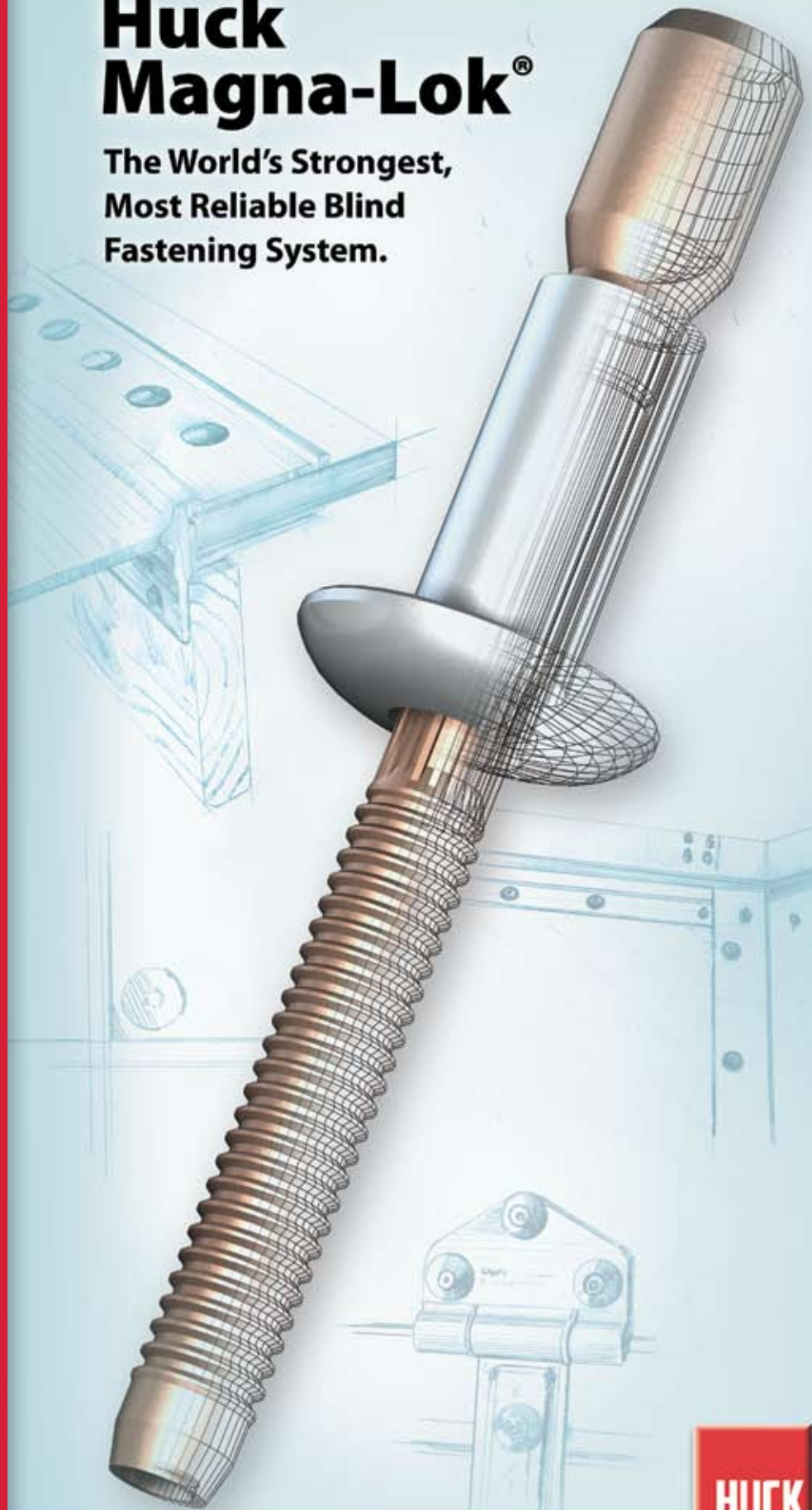


Alcoa  
Fastening  
Systems



# Huck Magna-Lok<sup>®</sup>

The World's Strongest,  
Most Reliable Blind  
Fastening System.





## Magna-Lok®. For a variety of applications, nothing else will do.

**T**he 360° solid-circle lock. It's Alcoa Fastening System's answer to loosening and vibration challenges. And 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 lock flush into place reliably. Permanently.

Magna-Lok is ideal for applications ranging from general manufacturing and commercial truck body assembly to freight trailers, military vehicles, and postal vehicles. No fastening system is stronger or more dependable.

### **Twenty times the strength.**

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.

### **Quick and economical to install and inspect.**

Because installing Magna-Lok fasteners is so easy, a worker can install three fasteners in just two seconds. That's 5,400 fasteners an hour. And because they install from just one side, you pay just one worker.

With the Magna-Lok system, workers can be trained to install the fasteners in a matter of minutes. Installations are more accurate than other fasteners of the same kind, because the element of human error is not an issue. The lock is repeatable, and there's no need to grind or fill; you can paint right away.

What's more, inspections are quick and easy. Once properly installed, there's no need for torque inspections or x-rays.

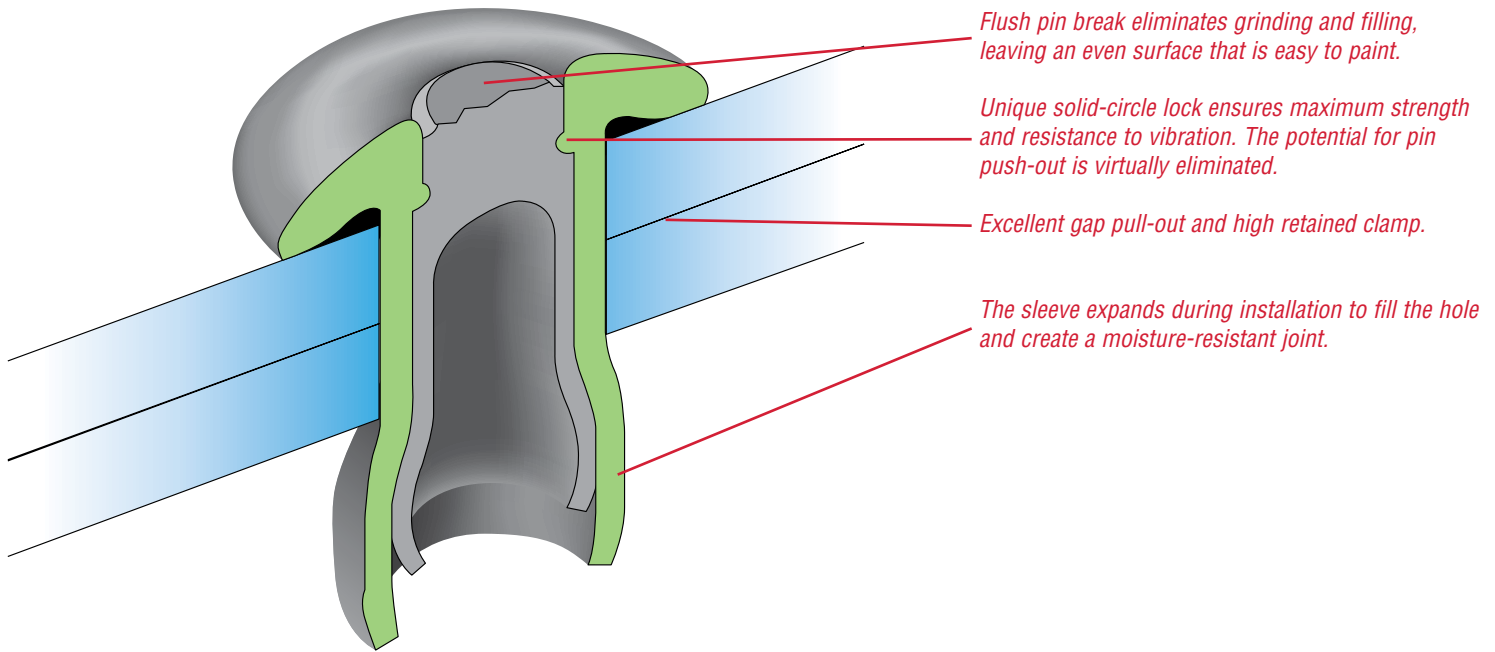
### **Easy on the ears. And the environment.**

Alcoa Fastening Systems use quiet, non-torque tools for lower noise in the plant. And health risks are reduced because operator muscles and joints are not subjected to the constant impact of power tools.

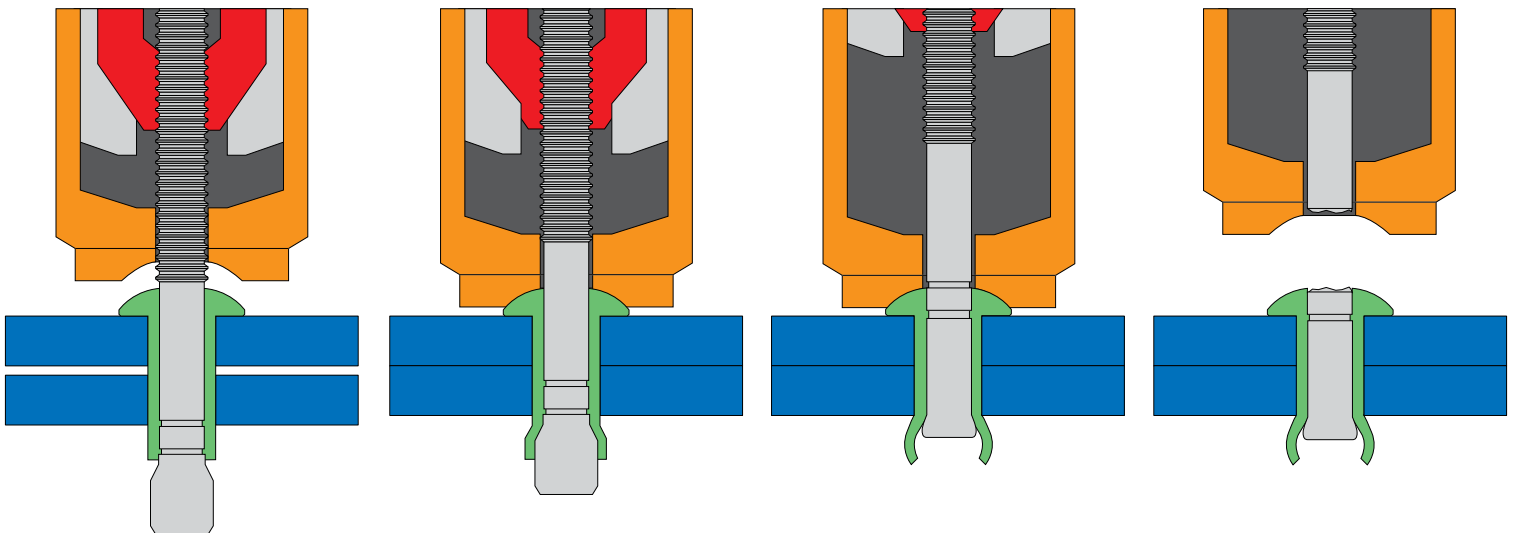
### **Strong support.**

Alcoa Fastening Systems' skilled and knowledgeable technicians are ready and waiting with valuable consultation, evaluation, installation assistance, and in-depth staff training. No other fastening company can match this level of premium, value-added support.

# Huck Magna-Lok®



## Installation Sequence



**1**

*The fastener is inserted into the prepared hole. The installation tool and nose assembly is placed over the pintail. The jaws within the nose assembly grip the pintail.*

**2**

*The installation tool piston moves rearward pulling the pintail, drawing the work pieces together, and forming an expanding sleeve on the blind side.*

**3**

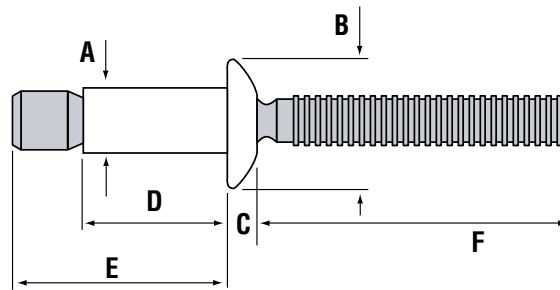
*Continued pulling on the pintail draws the pin inside the sleeve completing expansion within the sleeve and hole. A solid circle lock between the pin and sleeve is formed after the pin is seated.*

**4**

*The tool piston continues moving rearward, breaking the pintail at the breakneck and completing the installation.*

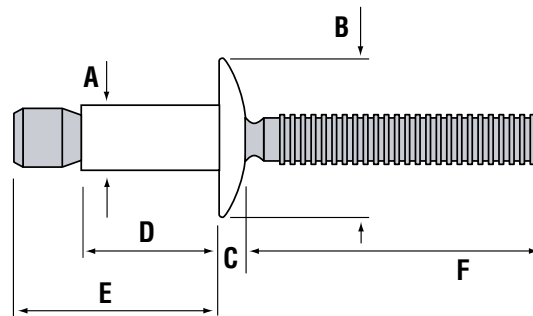
# Huck Magna-Lok®

## Grip Data and Dimensions : 6 (3/16"), 8 (1/4"), 12 (3/8")



### Protruding Head

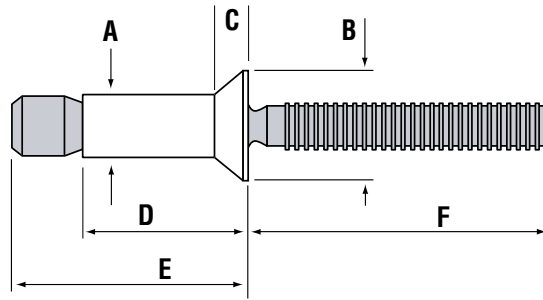
Dia.	Steel	Aluminum	Stainless	Grip Range	Hole Size	A	B	C	D	E	F
6 (3/16)	MGLP-R6-4	MGLP-B6-4	MGLP-U6-4	.062-.270	.191-.201	.187	.385	.085	.415	.675	1.00
	MGLP-R6-7	MGLP-B6-7	MGLP-U6-7	.214-.437	.191-.201	.187	.385	.085	.572	.825	1.00
	MGLP-R6-E	MGLP-B6-E	MGLP-U6-E	.062-.437	.191-.201	.187	.385	.085	.572	.950	1.00
	MGLP-R6-10		MGLP-U6-10	.455-.665	.191-.201	.187	.385	.085	.810	1.105	1.00
8 (1/4)	MGLP-R8-6	MGLP-B8-6	MGLP-U8-6	.080-.375	.261-.272	.253	.525	.117	.560	.970	1.00
	MGLP-R8-10	MGLP-B8-10	MGLP-U8-10	.350-.625	.261-.272	.253	.525	.117	.810	1.220	1.00
	MGLP-R8-14			.580-.875	.261-.272	.253	.525	.117	1.060	1.499	1.00
	MGLP-R8-18			.830-1.125	.261-.272	.253	.525	.117	1.310	1.799	1.00
	MGLP-R8-22			1.080-1.375	.261-.272	.253	.525	.117	1.560	1.999	1.00
	MGLP-R8-E	MGLP-B8-E	MGLP-U8-E	.080-.625	.261-.272	.253	.525	.117	.810	1.405	1.00
12 (3/8)	MGLP-R12-12	MGLP-B12-12	MGLP-U12-12	.120-.625	.392-.408	.386	.787	.175	.830	1.650	1.545
	MGLP-R12-18	MGLP-B12-18	MGLP-U12-18	.625-1.125	.392-.408	.386	.787	.175	1.40	2.215	1.545



### Truss Head

Dia.	Steel	Aluminum	Grip Range	Hole Size	A	B	C	D	E	F
6 (3/16)	MGLT-R6-4	MGLT-B6-4	.062-.270	.191-.201	.187	.513	.085	.415	.710	1.00
	MGLT-R6-7	MGLT-B6-7	.214-.437	.191-.201	.187	.513	.085	.572	.865	1.00
	MGLT-R6-E	MGLT-B6-E	.062-.437	.191-.201	.187	.513	.085	.572	1.015	1.00
8 (1/4)	MGLT-R8-6	MGLT-B8-6	.080-.375	.261-.272	.253	.588	.117	.560	.970	1.00
	MGLT-R8-10	MGLT-B8-10	.350-.625	.261-.272	.253	.588	.117	.810	1.220	1.00
	MGLT-R8-E	MGLT-B8-E	.080-.625	.261-.272	.253	.588	.117	.810	1.405	1.00

# Huck Magna-Lok®



## 100° Flush Head

Dia.	Steel	Aluminum	Stainless	Grip Range	Hole Size	A	B	C	D	E	F
6 (3/16)	MGL100-R6-6	MGL100-B6-6	MGL100-U6-6	.125-.331	.191-.201	.188	.345	.070	.486	.795	1.00
	MGL100-R6-9	MGL100-B6-9	MGL100-U6-9	.305-.500	.191-.201	.188	.345	.070	.653	.962	1.00
8 (1/4)	MGL100-R8-8	MGL100-B8-8	MGL100-U8-8	.160-.475	.261-.272	.253	.405	.079	.660	1.059	1.00
	MGL100-R8-12	MGL100-B8-12	MGL100-U8-12	.415-.725	.261-.272	.253	.405	.079	.910	1.309	1.00
	MGL100-R8-E16.4			.470-1.000	.261-.272	.253	.405	.079	1.185	1.780	1.00
12 (3/8)	MGL100-R12-12			.240-.750	.392-.408	.386	.627	.127	1.02	1.670	1.00
	MGL100-R12-20			.740-1.250	.392-.408	.386	.627	.127	1.520	2.230	1.00

## Typical Installed Values in Nominal Grip

Material	Diameter	Shear		Tensile		Pin Retention	
		Min	Typical	Min	Typical	Min	Typical
Steel	3/16	1300	1450	1000	1200	150	300
	8 (1/4)	2500	2750	1850	2200	300	400
	10 (3/8)	6000	6000	4000	4000	600	800
Aluminum	3/16	600	700	500	500	75	75
	8 (1/4)	1300	1300	890	890	100	100
	10 (3/8)	2550	3120	1500	1860	250	270
Stainless	3/16	1300	1600	950	1100	100	150
	8 (1/4)	2350	2500	1800	2000	200	250
	10 (3/8)	5300	5300	4000	4000	450	450



### 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®

## 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 (STYLE) - (MATERIAL) (DIAMETER) (GRIP NUMBER)**

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

Style	Material	Diameter
Protruding Head <b>P</b>	Steel <b>R</b>	3/16 <b>6</b>
Truss Head <b>T</b>	Aluminum <b>B</b>	1/4 <b>8</b>
100° Flush Head <b>100</b>	Stainless Steel <b>U</b>	3/8 <b>12</b>

## Materials and Finishes

Material	Sleeve	Pin	Sleeve Finish	Pin Finish
Steel	Low	Medium	Zinc Plated	Zinc Plated
	Carbon Steel	Carbon Steel	Clear Chromate	Clear Chromate
Aluminum	5000 Series	7000 Series	Clear Chromate	Clear Chromate
Stainless	300 Series	300 Series	Passivated	Dry Lubricated

## Installation Tools

Tool Model	Air Driven Tools							Hydraulic Tools	
	Size	255/256	2015	2022	2024	2025	AK175-I	2480	2580
Nose Assembly	3/16"	99-3327	Included	99-3303	99-3303	99-3303	120982	99-3303	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	202142	99-3305	99-3328
	3/8"	99-3318							99-3318

\* Not for high volume installation.

\*\* Not for use with steel fasteners - aluminum only.

## Hydraulic Tools



### Model 2480

Weight:	2.2 lbs
Length:	8.6"
Height:	6.5"
Width:	1.9"



### Model 2580

Weight:	6.6 lbs
Length:	8.4"
Height:	6.5"
Width:	2.2"

# Huck Magna-Lok®

## Air Driven Tools



### Model 2025

Weight:	5.75 lbs.
Length:	8.4"
Height:	12.5"
Width:	4.4"



### AK175-I Air Powered Hydraulic Riveter Kit

Weight:	28 oz.
Length:	7.2"
Height:	6"
Width:	1"



### Model 255 256

Weight:	11.1 lbs.	11.1 lbs.
Length:	8.8"	7.8"
Height:	15.1"	14.9"
Width:	6.1"	6.1"



### Model 2022

Weight:	5.4 lbs.
Length:	9.2"
Height:	12.5"
Width:	4.36"



### Model 2015

Weight:	4.9 lbs.
Length:	10.6"
Height:	12"
Width:	3.48"



### Model 2024

Weight:	5.75 lbs.
Length:	8.4"
Height:	12.5"
Width:	4.4"

Recommended for high volume production.



For the Long Haul™

## The Benefits of Huck Fastening Systems

Huck fastening systems deliver a number of important benefits, making them the worldwide leader.

- Easy to use – consistent accuracy with little operator training required
- High productivity – reducing installation time by 25% to 50%
- Reduced QC procedures – a visual inspection is sufficient to verify a correct installation
- Consistent high-clamp performance – typically much higher than with conventional fasteners
- Durability – extremely high clamp force retention, with 10% to 20% greater fatigue life than conventional threaded fasteners

## Alcoa Fastening Systems Commercial Products: A Global Organization

Alcoa Fastening Systems (AFS) maintains company offices in the United States and Canada, with offices in many other countries. Authorized AFS fastener distributors are also located in many of the world's industrial centers, where they provide a ready source of AFS fasteners, installation tools, tool parts, and application assistance.

### Americas

#### Industrial Fastener Division

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

#### Installation Tool Division

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

#### Indianapolis Distribution

5436 West 78<sup>th</sup> Street  
Indianapolis, IN 46268, USA  
Tel: 800 826 2884  
Fax: 800 573 2645

#### Latin America Sales

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

#### Mississauga Distribution

6150 Kennedy Road, Unit 10  
Mississauga, Ontario L5T-2J4  
CANADA  
Tel: 905 564 4825  
Fax: 905 564 1963

### International Locations

#### Melbourne Operations

20 Stamford Road  
Oakleigh, Victoria, 3166  
AUSTRALIA  
Tel: 61 3 9567 3377  
Fax: 61 3 9563 1980

#### Shanghai Sales

2nd Floor  
Jiatai Road  
Waigaoqiao Free Trade Zone  
Shanghai (200131), China  
Tel: 86-21-58665080  
Fax: 86-21-58681859

#### Singapore Sales

Blk 194 Pandan Loop  
#07-16 Pantech Industrial  
Complex 128383, SINGAPORE  
Tel: 65 67 78 92 33  
Fax: 65 67 78 01 51

#### Telford Operations

Unit C, Stafford Park 7  
Telford, Shropshire TF3, 3BQ  
UNITED KINGDOM  
Tel: 44 1952 290011  
Fax: 44 1952 290459

### Your Authorized Distributor

For The Long Haul, The Future of Fastening Technology, The Future of Assembly Technology, The Future of Tooling Technology, and Tools of Productivity are service marks of Alcoa Fastening System. AFS provides technical assistance regarding the use and application of both fasteners and tooling.

B-AF202 0707-5M

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www.alcoafasteningssystem.com

# Alcoa Fastening Systems



One Great Connection<sup>SM</sup>