

Alcoa
Fastening
Systems & Rings



Auto-Bulb™

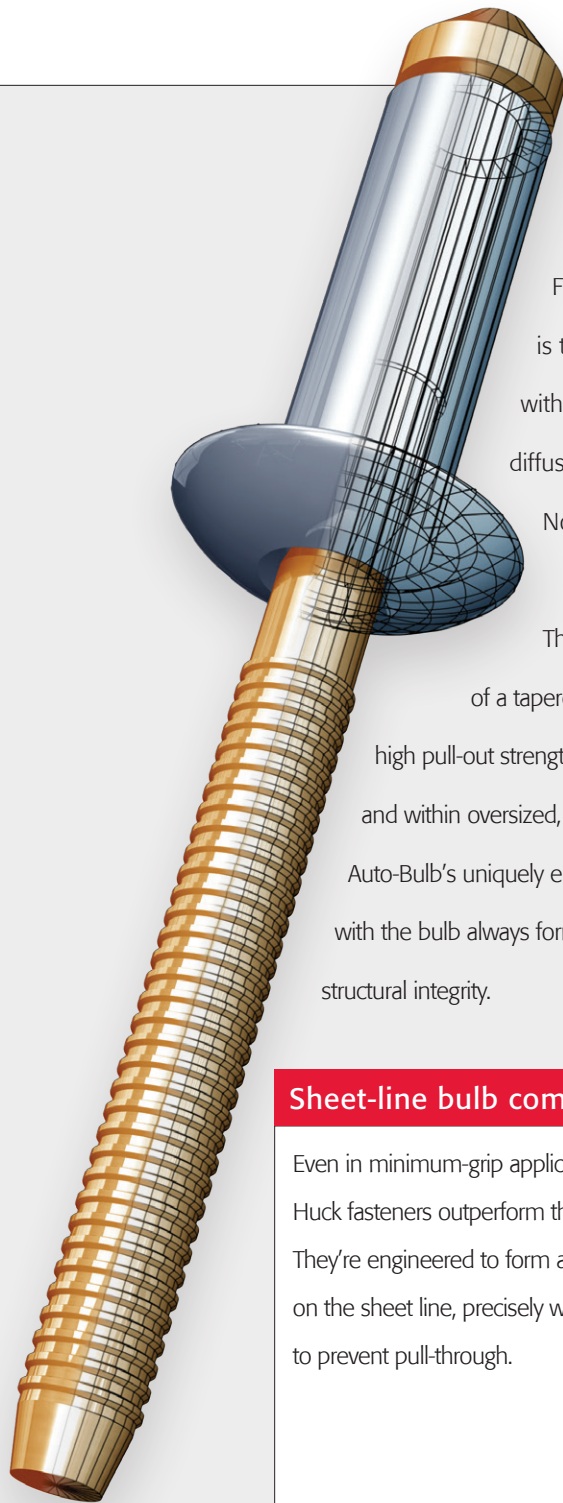
Huck's unique bulbing
fastener for automated,
high-speed assemblies.

Sheet line bulbing
Available in stainless steel
High shear strength



Huck Auto-Bulb™

An easy-to-install bulbing fastening system for superior blind side strength.



For use in thin materials or delicate composites, Huck Auto-Bulb™ is the perfect solution. Easy-to-install, it works by clamping the joint with a large diameter head and broad, blind side bulb, which spreads to diffuse the load over a larger area, ensuring permanent clamp.

Now available in stainless steel for superior corrosion resistance.

This high-reliability fastener offers an easy-to-use lead-in point in the form of a tapered, hole-seeking tip, which means fast, reliable installation. Because of its high pull-out strength, Auto-Bulb is an ideal choice for use within thin materials, and within oversized, misaligned, or slotted holes. Unlike other bulbing blind fasteners, Auto-Bulb's uniquely engineered bulbing system creates superior blind side bearing strength with the bulb always forming on the sheet line. Its positive mechanical pin retention ensures structural integrity.

Sheet-line bulb comparison

Even in minimum-grip applications, Huck fasteners outperform the competition. They're engineered to form a bulb directly on the sheet line, precisely where it's needed, to prevent pull-through.



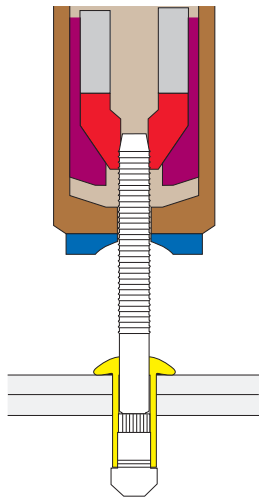
Auto-Bulb™
Bulb forms directly on sheet line.

The Competition
Bulb forms irregularly above sheet line resulting in lower installed values.

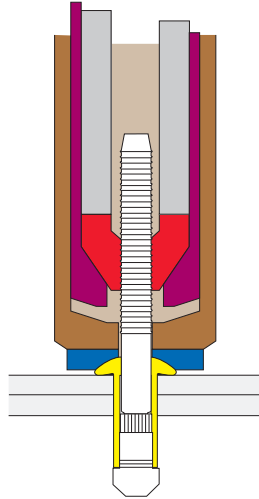


Installation Sequence

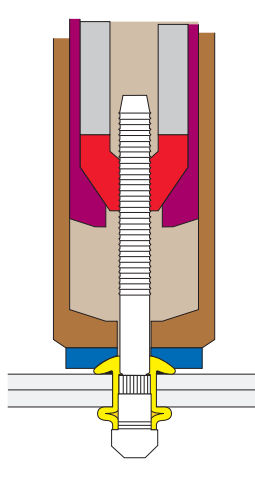
Auto-Bulb's tapered lead-in point means fast, easy installation, every time.



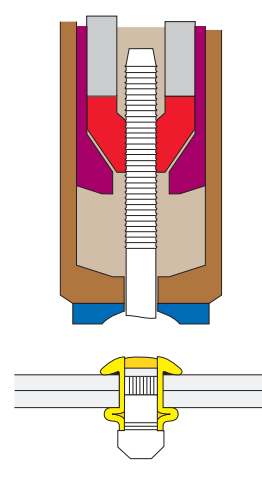
Insert the fastener into the hole and slip the installation tool over the pintail.



Press the trigger to initiate pulling action. As the tool pulls on the pintail, the solid pin head captures the end of the sleeve and acts to initiate bulb formation and draws the work pieces together.



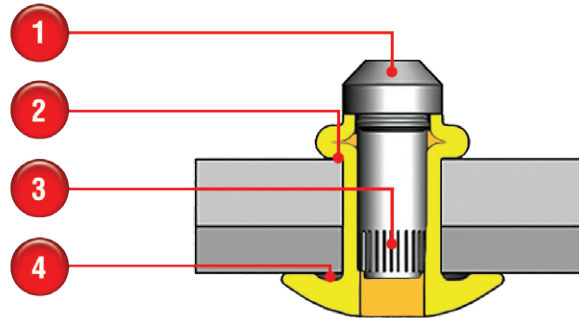
Continued pulling on the pintail expands the bulb to maximum allowable diameter.



A spline feature on the pin comes into contact with a step on the sleeve creating an interference lock between the pin and sleeve and the pin breaks. The pin will break close to flush in minimum grip and below flush as the grip increases.

Secure, Fast Installation

1. Tapered hole-seeking tip for quick and easy installation
2. Bulb always forms on the sheet line for superior blind side strength
3. Positive mechanical pin retention ensures structural integrity
4. Undercut fillet allows seating in burred holes

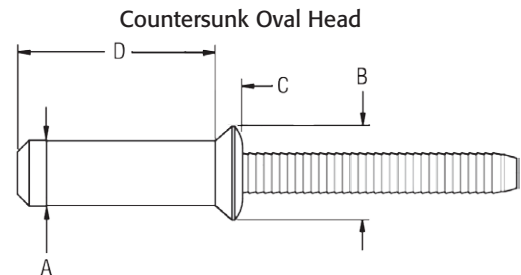
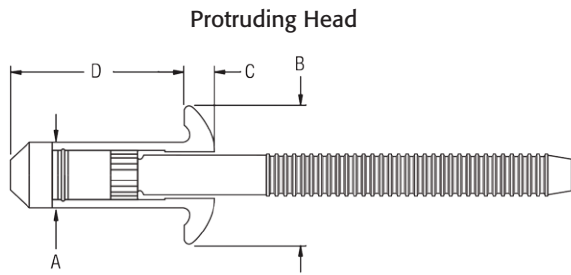


Auto-Bulb™ Benefits

- Unmatched installation speed
- Superior blind side strength
- Minimal blind side protrusion prior to installation
- Vibration resistance
- Corrosion resistance (400 stainless steel)
- High pull-out strength in thin materials
- Aesthetic blind side appearance

Data and dimensions

Head style options



Protruding Head Dimensions

Diameter	Steel	Stainless	Grip Range	Grip Range (Metric)	Hole Size	A Max	B Nom	Broch C Max	Broch D Max
6 (3/16")	ABP-R6-M2	-	.075 - .110	1.9 - 2.8	.191 - .201	0.190	0.375	0.101	0.471
	ABP-R6-M3	-	.086 - .150	2.2 - 3.8	.191 - .201	0.190	0.375	0.101	0.510
	ABP-R6-M4	-	.126 - .189	3.2 - 4.8	.191 - .201	0.190	0.375	0.101	0.550
	ABP-R6-M5	-	.165 - .228	4.2 - 5.8	.191 - .201	0.190	0.375	0.101	0.589
	ABP-R6-M6	-	.205 - .268	5.2 - 6.8	.191 - .201	0.190	0.375	0.101	0.629
	ABP-R6-M7	-	.244 - .307	6.2 - 7.8	.191 - .201	0.190	0.375	0.101	0.668
	ABP-R6-M8	-	.283 - .347	7.2 - 8.8	.191 - .201	0.190	0.375	0.101	0.708
	ABP-R6-M9	-	.323 - .386	8.2 - 9.8	.191 - .201	0.190	0.375	0.101	0.747
	ABP-R6-M10	-	.362 - .425	9.2 - 10.8	.191 - .201	0.190	0.375	0.101	0.787
	ABP-R6-M11	-	.402 - .465	10.2 - 11.8	.191 - .201	0.190	0.375	0.101	0.826
	ABP-R6-M12	-	.441 - .502	11.2 - 12.8	.191 - .201	0.190	0.375	0.101	0.866
	ABP-R6-M13	-	.481 - .544	12.2 - 13.8	.191 - .201	0.190	0.375	0.101	0.905
	ABP-R6-M14	-	.520 - .583	13.2 - 14.8	.191 - .201	0.190	0.375	0.101	0.945
	ABP-R6-M15	-	.560 - .623	14.2 - 15.8	.191 - .201	0.190	0.375	0.101	0.984
8 (1/4")	ABP-R6-M16	-	.599 - .662	15.2 - 16.8	.191 - .201	0.190	0.375	0.101	1.024
	ABP-R6-M17	-	.639 - .702	16.2 - 17.8	.191 - .201	0.190	0.375	0.101	1.063
	ABP-R6-M18	-	.678 - .741	17.2 - 18.8	.191 - .201	0.190	0.375	0.101	1.103
	ABP-R8-M2	ABP-4U8-M2	.060 - .138	1.5 - 3.5	.261 - .272	0.260	0.512	0.130	0.622
	ABP-R8-M3	ABP-4U8-M3	.110 - .189	2.8 - 4.8	.261 - .272	0.260	0.512	0.130	0.673
	ABP-R8-M4	ABP-4U8-M4	.150 - .229	3.8 - 5.8	.261 - .272	0.260	0.512	0.130	0.713
	ABP-R8-M5	ABP-4U8-M5	.189 - .268	4.8 - 6.8	.261 - .272	0.260	0.512	0.130	0.752
	ABP-R8-M6	ABP-4U8-M6	.229 - .308	5.8 - 7.8	.261 - .272	0.260	0.512	0.130	0.792
	ABP-R8-M7	ABP-4U8-M7	.268 - .346	6.8 - 8.8	.261 - .272	0.260	0.512	0.130	0.831
	ABP-R8-M8	ABP-4U8-M8	.308 - .387	7.8 - 9.8	.261 - .272	0.260	0.512	0.130	0.871
	ABP-R8-M9	ABP-4U8-M9	.346 - .425	8.8 - 10.8	.261 - .272	0.260	0.512	0.130	0.910
	ABP-R8-M10	ABP-4U8-M10	.387 - .466	9.8 - 11.8	.261 - .272	0.260	0.512	0.130	0.950
	ABP-R8-M11	ABP-4U8-M11	.425 - .504	10.8 - 12.8	.261 - .272	0.260	0.512	0.130	0.988
	-	ABP-4U8-M12	.466 - .545	11.8 - 13.8	.261 - .272	0.260	0.512	0.130	1.029
	-	ABP-4U8-M13	.504 - .583	12.8 - 14.8	.261 - .272	0.260	0.512	0.130	1.068
	-	ABP-4U8-M16	.622 - .701	15.8 - 17.8	.261 - .272	0.260	0.512	0.130	1.186
	ABP-R8-M19	ABP-U8-M19	.741 - .820	18.8 - 20.8	.261 - .272	0.260	0.512	0.130	1.305

Countersunk Oval Head Dimensions

Diameter	Steel	Stainless	Grip Range	Grip Range (Metric)	Hole Size	A Max	B Nom	Broch C Max	Broch D Max
12 (3/8")	ABV-R12-6	-	.313 - .437	8.0 - 11.1	.392 - .408	0.393	0.572	0.175	1.110
	ABV-R12-8	-	.438 - .562	11.1 - 14.3	.392 - .408	0.393	0.572	0.175	1.235
	ABV-R12-10	-	.563 - .687	14.3 - 17.4	.392 - .408	0.393	0.572	0.175	1.360
	ABV-R12-10X	-	.530 - .655	13.5 - 16.6	.392 - .408	0.393	0.572	0.175	1.350
	ABV-R12-12	-	.688 - .812	17.5 - 20.6	.392 - .408	0.393	0.572	0.175	1.485
	ABV-R12-14	-	.813 - .937	20.7 - 23.8	.392 - .408	0.393	0.572	0.175	1.610

Typical Installed Values in Nominal Grip

Material	Diameter	Shear		Tensile		Pin Retention	
		Min	Typical	Min	Typical	Min	Typical
Steel	*6 (3/16")	1400	1450	875	1100	150	300
	8 (1/4")	2600	3400	1600	2100	300	550
	12 (3/8")	6000	7800	4000	4300	600	1200
400 Series Stainless	*6 (3/16")	1400	1450	875	1100	150	300
	8 (1/4")	2600	3400	1600	2100	300	600

** Special orders only – Minimum quantities apply*

Undercut fillet allows seating in burred holes

Pin remains in shear plane for superior strength

Aesthetic blind side appearance

Unlike competitive fasteners which use a thinner material to facilitate the bulb, Auto-Bulb maintains a thicker sleeve wall – note the consistent width – to help ensure the structural strength of the joint.



Huck Auto-Bulb™ Installation Tooling

Installation Tools

Tool Model	Size	Pneudraulic Tools						Hydraulic Tools	
		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



AK175-I
Pneudraulic
Riveter Kit



Model
2480



Model
2025

Tooling Weight and Dimensions

Model	Type	Weight	Length	Height	Width
255	pneudraulic	8.8 lbs	7.1"	14.9"	4.6"
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"
AK175-I**	pneudraulic	28 oz.	7.2"	6"	1"
2480	hydraulic	2.2 lbs	8.6"	6.5"	1.9"
2580	hydraulic	6.6 lbs	8.4"	6.5"	2.2"

* Recommended for high volume production.

** Not recommended for high volume production

Ordering Information

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

Ordering Information

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

Example: ABP-R8-M4 is a Protruding Head Auto-Bulb, Steel, 1/4" Diameter, M4 Grip.

Head Style	Code
Protruding	P
Countersunk Oval Head	V

Material	Code
Steel	R
400 Series Stainless Steel	4U

Diameter	Code
3/16"	6
1/4"	8
3/8"	12

Materials and Finishes

Material	Sleeve	Pin	Sleeve Finish	Pin Finish
Steel	Low Carbon Steel	Medium Carbon Steel	Zinc Plated Clear Chromate	Zinc Plated Clear Chromate
400 Series Stainless Steel	400 Series	400 Series	Passivated/Clear Sealer	Zinc Plated Clear Chromate/ Clear Sealer



Alcoa Fastening Systems & Rings



For more than 120 years, the name Alcoa has been recognized worldwide as a strong leader in product quality and customer support. These strengths are found in every product manufactured for Alcoa Fastening Systems & Rings, offering the greatest breadth and depth of fastening system solutions in the industry.

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

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AFSHuck.net
Youtube.com/AFSIndustrial

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