# Huck<sup>®</sup> BOM<sup>®</sup>

The highest strength blind fasteners in the world

Vibration resistant Easy to install Mechanically locked

3/16"-3/4"



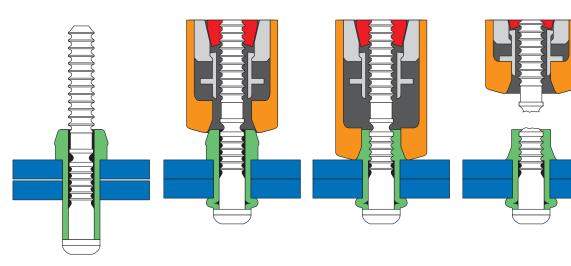


# The Huck BOM®

The highest strength blind oversize fasteners in the world.

BOM® (Blind, Oversize Mechanically locked) fasteners from Alcoa Fastening Systems & Rings are so strong, one can do the work of up to four conventional fasteners. There is not a more vibration resistant blind fastener than the BOM, or one that works harder in so many different applications. Featuring a unique push-and-pull installation design, the BOM fastening system is tough enough for military vehicles and equipment, auto suspensions, amusement park rides, rail car assembly, and shaft steel storage and retrieval racks. Even the most demanding high-tensile application is no match for the strength of the BOM fastening system. Because installing BOM fasteners is so easy, a worker can learn the installation procedure in just 10 minutes, eliminating the need to hire certified welders or specially trained employees. And because they install from just one side, BOMs can be used in all blind side applications. Installations are more accurate than other fasteners, because the element of human error is not an issue. In other words, correct installation doesn't depend on operator skill or specialized tools. In addition, you can often start using BOM fasteners immediately with your current tools, saving you more money in the long run.

### **Installation Sequence**

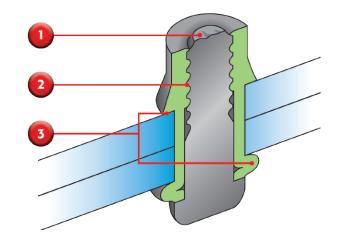


Insert the fastener into the hole and slip the installation tool over the pintail.

Press the trigger to initiate pulling action. As the tool pulls on the pintail, the unique collar design "stands off" the swaging action until the maximum allowable bulb is formed on the backside.

Continued pulling on the pintail draws the work pieces together and the swaging anvil overcomes the standoff and moves down the length of the collar, securely locking the collar to the pin. Once the collar is swaged, the pin breaks leaving a high strength, vibration resistant secured joint.

## Secure, fast installation



When the pin separates near flush, the BOM fastener is installed correctly. The BOM fastener does not require surface preparation, grinding or filling after installation.

The collar is locked to the pin through the "swaging" process, creating a high vibration resistant connection and the highest strength of any blind fastener.

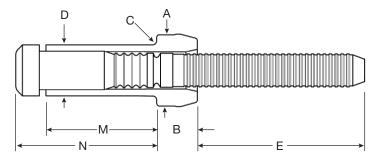
Large bearing area on both sides of the work piece ensures a permanently-held, tamper-resistant joint.

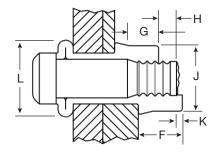
#### BOM® benefits

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

# Data and dimensions

### Small Diameter Bullet Head Blind Rivet





Dimensional Data								
Dia.	Grip No.	Hole Size	А	В	C Max	D	E Min	
3/16"	(6)	.208222	0.276 - 0.286	0.152 - 0.168	0.015	0.196 - 0.206	0.785	
1/4"	(8)	.277292	0.368 - 0.380	0.205 - 0.225	0.020	0.262 - 0.275	0.860	
5/16"	(10)	.348368	0.468 - 0.478	0.266 - 0.278	0.025	0.332 - 0.346	1.285	
3/8"	(12)	.413435	0.553 - 0.563	0.315 - 0.327	0.030	0.393 - 0.411	1.230	
1/2"	(16)	.546581	0.740 - 0.755	0.415 - 0.438	0.035	0.529 - 0.544	1.530	
5/8"	(20)	.687728	0.925 - 0.941	0.507 - 0.545	0.040	0.662 - 0.685	1.710	
3/4"	(24)	.828873	1.110 - 1.130	0.637 - 0.654	0.050	0.795 - 0.816	2.150	

Inspection Data						
Dia.	F Nom	G Min	H Max	J Max	K Max	L Nom
3/16"	0.177	0.109	0.094	0.261	0.031	0.306
1/4"	0.232	0.156	0.094	0.346	0.031	0.405
5/16"	0.300	0.187	0.171	0.434	0.046	0.517
3/8"	0.360	0.203	0.171	0.510	0.046	0.605
1/2"	0.475	0.297	0.171	0.686	0.063	0.841
5/8"	0.595	0.406	0.313	0.874	0.078	1.038
3/4"	0.722	0.438	0.313	1.027	0.078	1.267



	Grip No.	Grip Range	M Nom	N Max		Grip No.	Grip Range	M Nom	N Ma
	2	.093156	.376	.500		4	.188312	.766	.975
	3	.157219	.439	.562		6	.313437	.891	1.10
	4	.220281	.501	.625		8	.438562	1.016	1.22
	5	.282344	.564	.687		10	.563687	1.141	1.35
	6	.345406	.626	.750	12 (3/8")	12	.688812	1.266	1.47
6 (3/16")	7	.407469	.689	.812		14	.813937	1.391	1.60
	8	.470531	.751	.875		16	.938 - 1.062	1.516	1.72
	9	.532594	.814	.937		18	1.063 - 1.187	1.641	1.85
	10	.595656	.876	1.000		20	1.188 - 1.312	1.766	1.97
	11	.657719	.939	1.062					
	12	.720781	1.001	1.125		4	.251375	1.000	1.26
			100			6	.376500	1.125	1.39
	2	.093156	.460	.625	16 (1/2")	8	.501625	1.250	1.51
	3	.157219	.523	.688		10	.626750	1.375	1.64
	4	.220281	.585	.750		12	.751875	1.500	1.76
	5	.282344	.648	.813		14	.876 -1.000 1.001 -1.125	1.625 1.750	1.89
	6	.345406	.710	.875		18		1.750	2.01
- (- (-11)	7	.407469	.773	.938			1.126 -1.250		2.14
8 (1/4")	8	.470531	.835	1.000		20	1.251 -1.375	2.000	2.26
	9	.532594	.898	1.063		22	1.376 -1.500	2.125	2.39
	10	.595656	.960	1.125		24	1.501 -1.625	2.250	2.51
	11	.657719	1.023	1.188		1	251 500	1 2 1 7	1 57
	12	.720781	1.085	1.250		4	.251500	1.213	1.53
	13	.782843	1.147	1.313	20 (E/9!!)	12	.501750	1.463 1.713	1.78
	14	.844905	1.209	1.375	20 (5/8")	16	.751 -1.000 1.001 -1.250	1.713	2.03
	4	.188312	.695	.875		20	1.251 -1.500	2.213	2.20
	5	.250375	.758	.938		20	1.231 -1.300	2.213	2.33
	6	.313437	.820	1.000		4	.251500	1.380	1.75
	8	.438562	.945	1.125	24 (7 /4")	8	.501750	1.630	2.00
10 (5/16")	10	.563687	1.070	1.250	24 (3/4")	12	.751 -1.000	1.880	2.25
(0) )	12	.688812	1.195	1.375		16	1.001 -1.250	2.130	2.50

Installed Values in Nominal Grip (lbs.)						
Diameter	Shear	Tensile				
3/16"	2800	1800				
1/4"	5100	3250				
5/16"	8050	5200				
3/8"	11100	7250				
1/2"	20150	13000				
5/8"	28500	20500				
3/4"	45100	29100				

.938 -1.062

1.445

1.625

16

Note: These are minimum ultimate shear and tensile strengths, in pounds, of installed fastener, when tested in a grip equal to or greater than one and one half the fastener diameter.

# **BOM®** Installation Tooling

Installation Tools									
Pneudraulic Tools				Hydraulic Tools					
Tool Model	Size*	254	256	2480	2581	2600	2624	2624 PTD	3585
Nose Assembly	3/16"	99-1053	99-1053	99-994	99-1053				
	1/4"	99-830-1	99-830-1		99-830-1				
	5/16"		99-769		99-769**	99-3119			
	3/8"		99-1272*		99-1272	99-3122			
	1/2"						99-5107	99-5106	99-5107
	5/8"						99-5102		99-5102
	3/4"								99-5103

<sup>\*</sup> Use only in very low volume repair applications.

<sup>\*\*</sup> Requires 123634-2580 steel deflector



# Ordering Information

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

## Ordering Information

BOM-R (DIAMETER) - (GRIP NUMBER)

Example: BOM-R8-6 is a BOM blind rivet, Steel, 1/4" Diameter, Grip 6.

Material	Code		
Steel	R		

Diameter	Code
3/16"	6
1/4"	8
5/16"	10
3/8"	12
1/2"	16
5/8"	20
3/4"	24

# Materials and Finishes

Material	Sleeve	erial Sleeve Pin	Sleeve Finish	Pin Finish
Steel	Low Carbon Steel	eel Low Carbon Steel Medium Carbon Steel	Zinc Plated Clear Chromate	None (Std)



# 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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