



# Magna-Bulb<sup>®</sup>

Unique Bulbing Fastener with  
Large Blind-Side Surface

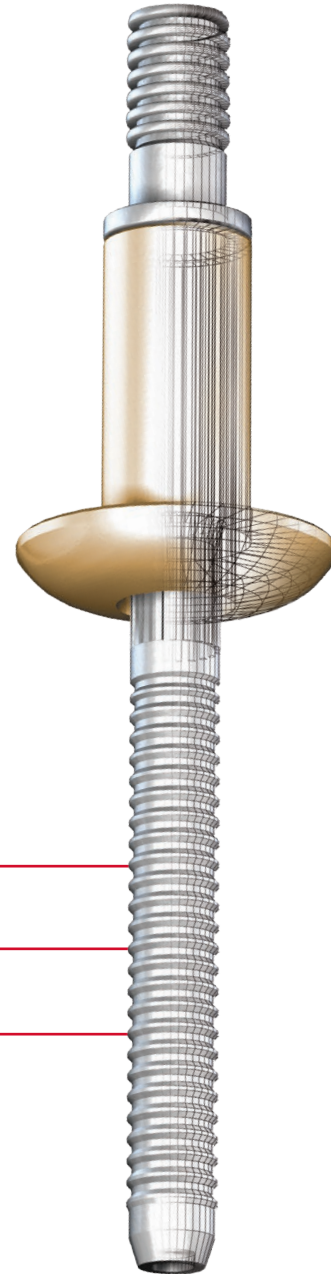


# Huck® Magna-Bulb®

## A Unique Bulbing Fastener with High Shear Strength

Huck Magna-Bulb® is a unique, clamp-type fastener offering high shear strength in specific applications. Its bulbing action during installation spreads the load over more surface area, supplying a stronger, longer-lasting connection, while offering superior blind side strength.

This increased bearing area makes Magna-Bulb ideal for pull-out resistance in thin materials, and oversized or misaligned holes. Positive, mechanical pin-retention ensures structural integrity no matter what the application.



**Available Sizes** 3/16", 1/4", 5/16"

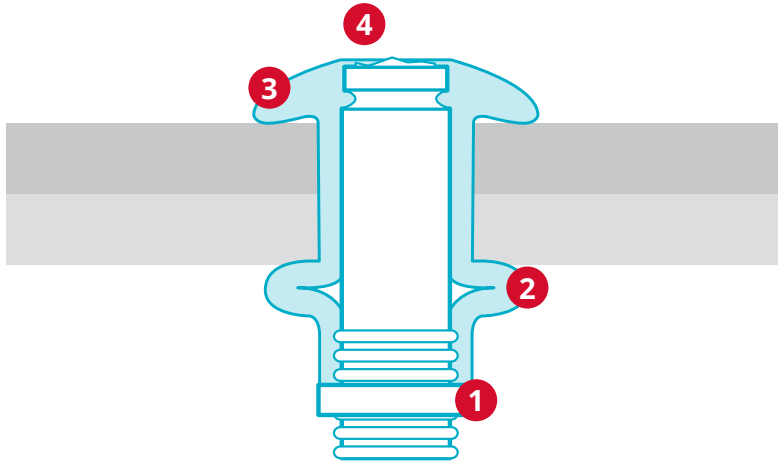
**Materials** Steel

**Headstyles** Protruding, Truss, 100° Oval Flush

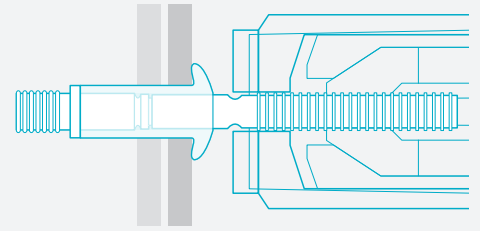


- ✓ Unmatched installation speed
- ✓ Low overall installed cost
- ✓ Vibration resistance
- ✓ Weather-resistant seal
- ✓ Quiet non-torque tools
- ✓ No repetitive stress injuries
- ✓ Eliminates need for secondary operations
- ✓ No special training or skills required for operators

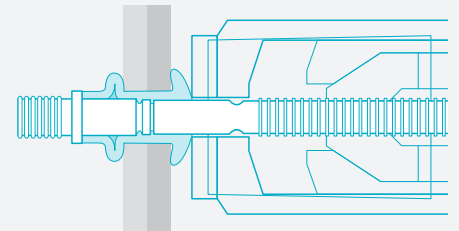
## Secure, Fast Installation



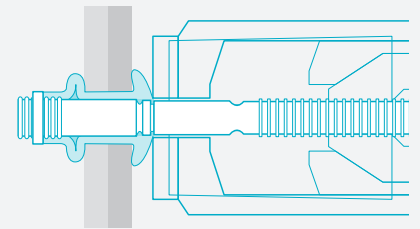
- 1 Shear ring design promotes bulb formation and grip adjustment for flush break throughout the grip range
- 2 The wide blind footprint (bulb) gives the fastener a broader bearing surface, spreading the load out for greater strength and high pull out resistance
- 3 Unique solid circle lock ensures maximum strength and resistance to vibration
- 4 Breaking flush throughout the entire grip range, the Magna-Bulb fastener eliminates costly cosmetic finish work. Simple visual inspection ensures that the fastener is installed correctly.



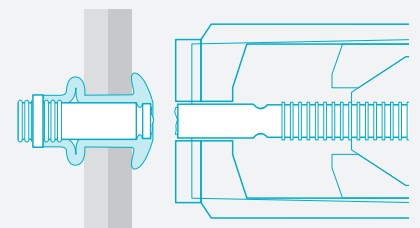
- 1 Insert the fastener into the hole and slip the installation tool over the pintail.



- 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.

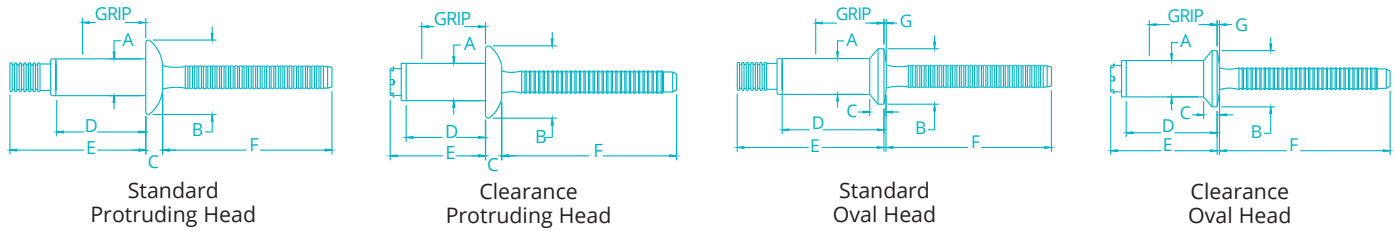


- 3 Press the trigger to initiate pulling action. As the tool pulls on the pintail, the pin (mandrel) expands the sleeve and begins drawing the work pieces together.



- 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



## Magna-Bulb Dimensions

DIA.	STANDARD	CLEARANCE	GRIP RANGE (IN)	GRIP RANGE (MM)	HOLE SIZE	A NOM	B MAX	C MAX	D MAX	STANDARD E MAX	CLEARANCE E MAX	F MIN
<b>Protruding Head</b>												
3/16"	MBP-R6-M2	MBCP-R6-M2	.075-.110	1.9-2.8	.191-.201	.187	.395	.101	.325	.588	.403	1.084 / 1.079(MBCP)
	MBP-R6-M3	MBCP-R6-M3	.087-.150	2.2-3.8	.191-.201	.187	.395	.101	.365	.668	.481	1.044 / 1.039(MBCP)
	MBP-R6-M4	MBCP-R6-M4	.126-.189	3.2-4.8	.191-.201	.187	.395	.101	.404	.691	.505	1.060 / 1.055(MBCP)
	MBP-R6-M5	MBCP-R6-M5	.165-.228	4.2-5.8	.191-.201	.187	.395	.101	.443	.730	.544	1.060 / 1.055(MBCP)
	MBP-R6-M6	MBCP-R6-M6	.205-.268	5.2-6.8	.191-.201	.187	.395	.101	.483	.770	.584	1.060 / 1.055(MBCP)
	MBP-R6-M7	MBCP-R6-M7	.244-.307	6.2-7.8	.191-.201	.187	.395	.101	.522	.809	.623	1.060 / 1.055(MBCP)
	MBP-R6-M8	MBCP-R6-M8	.283-.347	7.2-8.8	.191-.201	.187	.395	.101	.562	.849	.663	1.060 / 1.055(MBCP)
	MBP-R6-M9	MBCP-R6-M9	.323-.386	8.2-9.8	.191-.201	.187	.395	.101	.601	.888	.702	1.060 / 1.055(MBCP)
	MBP-R6-M10	MBCP-R6-M10	.362-.425	9.2-10.8	.191-.201	.187	.395	.101	.640	.927	.741	1.060 / 1.055(MBCP)
	MBP-R6-M11	-	.402-.465	10.2-11.8	.191-.201	.187	.395	.101	.680	.967	-	1.060
	MBP-R6-M12	-	.441-.504	11.2-12.8	.191-.201	.187	.395	.101	.719	1.006	-	1.060
	MBP-R6-M13	-	.481-.544	12.2-13.8	.191-.201	.187	.395	.101	.759	1.046	-	1.060
	MBP-R6-M14	-	.520-.583	13.2-14.8	.191-.201	.187	.395	.101	.798	1.085	-	1.060
	8/14"	MBP-R8-M2	MBCP-R8-M2	.060-.138	1.5-3.5	.261-.272	.253	.530	.125	.437	.773	.547
MBP-R8-M3		MBCP-R8-M3	.110-.189	2.8-4.8	.261-.272	.253	.530	.125	.488	.860	.649	1.147
MBP-R8-M4		MBCP-R8-M4	.150-.229	3.8-5.8	.261-.272	.253	.530	.125	.528	.940	.728	1.107
MBP-R8-M5		MBCP-R8-M5	.189-.268	4.8-6.8	.261-.272	.253	.530	.125	.567	.912	.701	1.174
MBP-R8-M6		MBCP-R8-M6	.229-.308 / .229-.306 (MBCP)	5.8-7.8	.261-.272	.253	.530	.125	.607	.947	.737	1.179
MBP-R8-M7		MBCP-R8-M7	.268-.346	6.8-8.8	.261-.272	.253	.530	.125	.646	.986	.776	1.179
MBP-R8-M8		MBCP-R8-M8	.308-.387	7.8-9.8	.261-.272	.253	.530	.125	.686	1.026	.816	1.179
MBP-R8-M9		MBCP-R8-M9	.346-.425	8.8-10.8	.261-.272	.253	.530	.125	.725	1.065	.855	1.179
MBP-R8-M10		-	.387-.466	9.8-11.8	.261-.272	.253	.530	.125	.765	1.105	-	1.179
MBP-R8-M11		MBCP-R8-M11	.425-.504	10.8-12.8	.261-.272	.253	.530	.125	.804	1.144	.934	1.179
MBP-R8-M12		-	.466-.545	11.8-13.8	.261-.272	.253	.530	.125	.844	1.184	-	1.179
MBP-R8-M13		MBCP-R8-M13	.504-.583	12.8-14.8	.261-.272	.253	.530	.125	.883	1.223	1.013	1.179
-		MBCP-R8-M16	.622-.701	15.8-17.8	.261-.272	.253	.530	.125	1.002	-	1.132	1.178
MBP-R8-M18		-	.701-.780	17.8-19.8	.261-.272	.253	.530	.125	1.079	1.419	-	1.179
MBP-R8-M19		MBCP-R8-M19	.741-.820 / .740-.819 (MBCP)	18.8-20.8	.261-.272	.253	.530	.125	1.120	1.460	1.250	1.179
-		MBCP-R8-M25	.976-1.055	24.8-26.8	.261-.272	.253	.530	.125	1.359	-	1.489	1.176
-		MBCP-R8-M29	1.134-1.213	28.8-30.8	.261-.272	.253	.530	.125	1.512	-	1.642	1.179
-		MBCP-R8-M31	1.212-1.291	30.8-32.8	.261-.272	.253	.530	.125	1.592	-	1.722	1.179
MBP-R8-M32		-	1.252-1.331	31.8-33.8	.261-.272	.253	.530	.125	1.632	1.972	-	1.179

## Magna-Bulb Dimensions

DIA.	STANDARD	CLEARANCE	GRIP RANGE (IN)	GRIP RANGE (MM)	HOLE SIZE	A NOM	B MAX	C MAX	D MAX	STANDARD E MAX	CLEARANCE E MAX	F MIN
<b>Protruding Head</b>												
10 (5/16")	MBP-R10-3	-	.150-.250	3.8-6.4	.3275-.340	.316	.655	.152	.620	1.104	-	1.379
	MBP-R10-4	-	.200-.300	5.1-7.6	.3275-.340	.316	.655	.152	.670	1.154	-	1.379
	MBP-R10-5	-	.250-.350	6.4-8.9	.3275-.340	.316	.655	.152	.720	1.204	-	1.379
	MBP-R10-6	-	.300-.400	7.6-10.2	.3275-.340	.316	.655	.152	.770	1.254	-	1.379
	MBP-R10-7	-	.350-.450	8.9-11.4	.3275-.340	.316	.655	.152	.820	1.304	-	1.379
	MBP-R10-8	-	.400-.500	10.2-12.7	.3275-.340	.316	.655	.152	.870	1.354	-	1.379
	MBP-R10-9	-	.450-.550	11.4-14.0	.3275-.340	.316	.655	.152	.920	1.404	-	1.379
	MBP-R10-10	-	.500-.600	12.7-15.2	.3275-.340	.316	.655	.152	.970	1.454	-	1.379

DIA	STANDARD	CLEARANCE	GRIP RANGE (IN)	GRIP RANGE (MM)	HOLE SIZE	A NOM	B MAX	C MAX	D MAX	STANDARD E MAX	CLEARANCE E MAX	F MIN	G (REF)	
<b>Oval Head Dimensions</b>														
8 (1/4")	MBV-R8-M4	-	.150-.229	3.8-5.8	.261-.272	.253	.410	.130	.528	.864	-	1.199	0.030	
	MBV-R8-M5	-	.189-.268	4.8-6.8	.261-.272	.253	.410	.130	.567	.939	-	1.160	0.030	
	MBV-R8-M6	-	.229-.308	5.8-7.8	.261-.272	.253	.410	.130	.607	1.019	-	1.120	0.030	
	MBV-R8-M7	-	.269-.348	6.8-8.8	.261-.272	.253	.410	1.130	.647	.992	-	1.186	0.030	
	-	MBCV-R8-M7.5		.290-.370	7.4-9.4	.261-.272	.253	.410	.130	.667	-	0.801	1.166	0.030
	MBV-R8-M9	-	.346-.425	8.8-10.8	.261-.272	.253	.410	.130	.725	1.065	-	1.192	0.030	
	MBV-R8-M10	-	.387-.466	9.8-11.8	.261-.272	.253	.410	.130	.765	1.105	-	1.192	0.030	
	MBV-R8-M13	-	.504-.583	12.8-14.8	.261-.272	.253	.410	.130	.883	1.223	-	1.192	0.030	
	MBV-R8-M19	MBCV-R8-M19	.741-.820 / .740-.818 (MBCV)	18.8-20.8	.261-.272	.253	.410	.130	1.120	1.460	1.250	1.192	0.030	
10 (5/16")	MBV-R10-5	-	.250-.350	6.4-8.9	.3275-.340	.316	.460	.160	.770	1.254	-	1.334	0.047	
	MBV-R10-6	-	.300-.400	7.6-10.2	.3275-.340	.316	.460	.160	.820	1.304	-	1.334	0.047	
	MBV-R10-7	-	.350-.450	8.9-11.4	.3275-.340	.316	.460	.160	.870	1.354	-	1.334	0.047	
	MBV-R10-8	-	.400-.500	10.2-12.7	.3275-.340	.316	.460	.160	.920	1.404	-	1.334	0.047	
	MBV-R10-9	-	.450-.550	11.4-14.0	.3275-.340	.316	.460	.160	.970	1.454	-	1.334	0.047	
	MBV-R10-10	-	.500-.600	12.7-15.2	.3275-.340	.316	.460	.160	1.020	1.504	-	1.334	0.047	
	MBV-R10-11	-	.550-.650	14.0-16.5	.3275-.340	.316	.460	.160	1.070	1.554	-	1.334	0.047	
	MBV-R10-12	-	.600-.700	15.2-17.8	.3275-.340	.316	.460	.160	1.120	1.604	-	1.334	0.047	
	MBV-R10-13	-	.650-.750	16.5-19.1	.3275-.340	.316	.460	.160	1.170	1.654	-	1.334	0.047	

## Blind Fastener Values - lbf (KN)

DIA.	PART NO.	GRIP	SHEAR		TENSILE		PIN RETENTION	
			MIN	TYP	MIN	TYP	MIN	TYP
6 (3/16")	MBP/MBV	All grips	1950	2100	1050	1150	150	300
	MBC	All grips	1650	1900	850	1025	150	300
8 (1/4")	MBP/MBV	-M2	2600	N/A	1900	N/A	300	550
		-M3	2700	N/A	1900	2300	300	550
		-M4	2760	N/A	1900	2300	300	550
		-M5	3000	3450	1900	2350	300	550
		-M6	3200	3450	1900	2350	300	550
		-M7 and Higher	3500	3650	1900	2500	300	550
	MBC	-M2	2300	N/A	1600	1750	300	550
		-M3	2400	N/A	1600	1750	300	550
		-M4	2500	N/A	1600	1800	300	550
		-M5	3000	3200	1600	1825	300	550
		-M6	3000	3450	1600	1850	300	550
		-M7 and Higher	3000	3450	1600	1950	300	550
10 (5/16")	MBP/MBV	All grips	5000	5500	2960	3850	470	1200

# Ordering Information

Follow the form below to construct a part number for ordering Huck Magna-Bulb blind fasteners. Refer to the data and dimensions chart for grip numbers.

## Standard Version

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

**Example:** MBP-R6-M4 is a Protruding Head Magna-Bulb, Steel, 3/16" Diameter, M4 Grip.

## Clearance Version

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

**Example:** MBCP-R8-M3 is a Protruding Head Clearance Magna-Bulb, Steel, 1/4" Diameter, M3 Grip.

HEAD STYLE	PREFIX
Protruding Head	P
Oval Head	V

MATERIAL	CODE
Steel	R

DIA.	CODE
3/16"	6
1/4"	8
5/16"	10

## Materials and Finishes

MATERIAL	SLEEVE	PIN	SLEEVE FINISH	PIN FINISH
Steel	Low Carbon Steel	Medium Carbon Steel	Zinc Plate / Chromate / Gold Dye	Zinc Plated Clear Chromate



# Installation Tooling

## Nose Assembly

SIZE	BATTERY	PNEUDRAULIC		HYDRAULIC	
	TOOL MODEL				
	BV4500-118	256	2024*	2480	2581
3/16"	99-3303	99-3327	99-3303	99-3303	99-3327
3/16" & 1/4"	99-3487**	-	99-3487**	-	-
1/4"	99-3305	99-3328	99-3305	99-3305	99-3328
5/16"	-	99-3307	-	-	99-3307

## Tooling Weight and Dimensions

MODEL	TYPE	WEIGHT	LENGTH	HEIGHT	WIDTH
BV4500-118	Battery	5 lbs	9.06"	9.42"	3.15"
256	Pneudraulic	11.1 lbs	7.9"	14.9"	6.3"
2024*	Pneudraulic	5.75 lbs	8.9"	12.6"	4.4"
2480	Hydraulic	2.2 lbs	8.2"	6.6"	1.9"
2581	Hydraulic	5.5 lbs	8.4"	7.1"	2.1"

\* Recommended

\*\* Not recommended for high volume production.





**HOWMET  
AEROSPACE**

# Howmet Fastening Systems

## Industrial Division Brands



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