

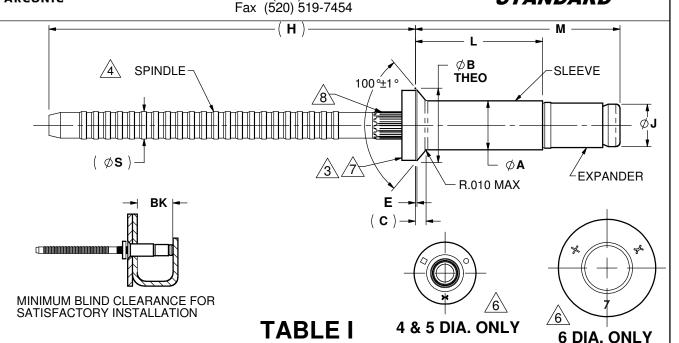
HUCK INTERNATIONAL,

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Arconic Fastening Systems and Rings Tucson Operations 3724 East Columbia Street Tucson, Arizona 85714 USA Phone (520) 519-7400

## **HuckMAX®**

#### ENGINEERING STANDARD



NOMINAL PART NUMBER	NOM. DIA. NO.	Ø A +.003 001	Ø B THEO DIA. ±.004	BK MIN.	(C)	E	(H)	Ø J MAX	(ØS)	SINGLE SHEAR	TENSILE 1	INSTALLED SPINDLE RETENTION	HOLE LIMITS
HR3224-4-( )	-4	.126	.192	.355	.028	.010 .002	.870	.129	.081	055	250	125	.132 .129
HR3224-5-( )	-5	.157	.243	.370	.037	.012 .002	.940	.160	.100	SEE SHEET THREE	390	200	.164 .160
HR3224-6-( )	-6	.189	.299	.415	.046	.012 .002	.940	.192	.117		560	290	.196 .192

#### NOTES:

THIS DRAWING, THE STRUCTURAL DESIGN DISCLOSED THEREIN AND THE TECHNICAL DATA AND ENGINEERING SERVICE REPRESENTED THEREBY ARE THE EXCLUSIVE PROPERTY

1. MINIMUM ULTIMATE SHEAR AND TENSILE STRENGTH, IN POUNDS, OF INSTALLED RIVET.

2. LUBRICATION: LUBRICATE PER NAS 1686

3. GOLD COLOR DRIVING ANVIL IDENTIFIES NOMINAL DIAMETER RIVET.

 $\sqrt{4}$ . SPINDLE CONFIGURATION - PULLING SERRATION DIMENSIONS SHALL BE PER NAS 9315.

5.\ APPLIES TO GRIPS 4-03 MAX, 5-03 MAX, 6-04 MAX AND UP.

identification: Huck Symbol, "+" sign and grip number ( $\phi$ 6 head style), or huck symbol, a "dot" (alum/cres material) and a "square" ( $\phi$ 4 &  $\phi$ 5 head style). Location and direction optional.

 $\sqrt{7}$ . WASHER ANVIL MAY BE LOCATED IN THIS AREA AND IS NOT PART OF THE INSTALLED FASTENER.

8. OPTIONAL SPLINE CONFIGURATION. KNURLED TO RETAIN FASTENER ASSEMBLY. NOT PART OF INSTALLED FASTENER.

9. STYLE A, CLASS 3, CODE E PER NAS 1686.

J 9.	STILL	STILL A, OLAGO S, CODE E PEN NAG 1000.					
1,	PER DCN 13721		Current Design Activity	PROCUREMENT	DRAWN BY	C. MARTINEZ	
K			CAGE Code OHDW7	SPEC NAS1686	CHECKED BY	SIGNATURE ON FILE	
ISSUED	10/8/1993		C, NOMINAL,	HR3224-( )-( )			
REVISED	3/27/2015		100° FLUSH SHEAR HEAD,			<i>)</i> -( <i>)</i>	
PAGE	1 OF 3	5056 ALUMINUM SLEEVE/	BLR139				

# HuckMAX®

### ENGINEERING STANDARD

## **TABLE II**

	HR	3224-4	(.126 D	A.)	HR	3224-5	(.157 D	<b>A</b> .)	HR3224-6 (.1		(.189 D	89 DIA.)	
GRIP DASH NO.	GF	DESIGN GRIP RANGE		M MAX	GF	SIGN RIP NGE	L +.000	M MAX	GF	SIGN RIP NGE	L +.000	M MAX	
	MIN.	MAX.	030	WEAK	MIN.	MAX.	030	WIFOX	MIN.	MAX.	030	WEAK	
02	.045*	.125	.224	.45	.063	.125	.230	.47	.080	.125	.262	.51	
03	.126	.187	.287	.51	.126	.187	.293	.53	.126	.187	.325	.57	
04	.188	.250	.349	.57	.188	.250	.355	.59	.188	.250	.387	.64	
05	.251	.312	.412	.63	.251	.312	.418	.65	.251	.312	.450	.70	
06	.313	.375	.474	.70	.313	.375	.480	.72	.313	.375	.512	.76	
07	.376	.437	.537	.76	.376	.437	.543	.77	.376	.437	.575	.82	
08	.438	.500	.599	.82	.438	.500	.605	.84	.438	.500	.637	.88	
09	.501	.562	.662	.88	.501	.562	.668	.90	.501	.562	.700	.95	
10					.563	.625	.730	.96	.563	.625	.762	1.01	
11					.626	.687	.793	1.02	.626	.687	.825	1.07	
12									.688	.750	.887	1.13	

<sup>\*</sup> FOR FASTENERS MANUFACTURED PRIOR TO 1-1-04, MIN GRIP WAS .063

## **TABLE III**

INSTALLED WEIGHT-LBS/1000 PCS								
HR3	3224-4	HR3	224-5	HR3224-6				
02	.73	02	1.14	02	1.75			
03	.88	03	1.36	03	2.07			
04	1.01	04	1.58	04	2.40			
05	1.15	05	1.80	05	2.73			
06	1.28	06	2.02	06	3.06			
07	1.42	07	2.24	07	3.39			
80	1.55	80	2.46	08	3.72			
09	1.69	09	2.68	09	4.05			
		10	2.90	10	4.38			
		11	3.12	11	4.71			
	•			12	5.04			

DIMENSIONS	INI	INCHES

1,	K PER DCN 13721		Current Design Activity	PROCUREMENT	DRAWN BY	C. MARTINEZ		
K			CAGE Code OHDW7	SPEC NAS1686	CHECKED BY	SIGNATURE ON FILE		
ISSUED	10/8/1993	® HuckM	HuckMAX , NOMINAL,			HR3224-( )-( )		
REVISED	3/27/2015		SH SHEAR HEAD,	1111	) <u></u> (	<i>)</i> -( <i>)</i>		
PAGE	2 OF 3	5056 ALUMINUM SLEEV	E/A-286 STAINLESS STEEL PIN		BLR13	9		

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ENGINEERING STANDARD

### **TABLE I V**

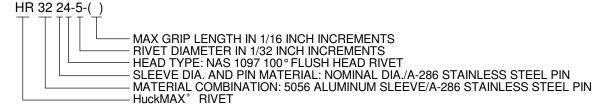
SINGLE SI	HEAR S	TRENGTH	SINGLE SI	HEAR S	TRENGTH	SINGLE SHEAR STRENGTH			
NOMINAL DIAMETER	GRIP DASH NO.	MINIMUM SINGLE SHEAR STRENGTH (LBS)	NOMINAL DIAMETER	GRIP DASH NO.	MINIMUM SINGLE SHEAR STRENGTH (LBS)	NOMINAL DIAMETER	GRIP DASH NO.	MINIMUM SINGLE SHEAR STRENGTH (LBS)	
	-02	411		-02	B		-02	B	
.126	-03	531	.157	-03	714	.189	-03	918	
.120	-04	651		-04	862		-04	1095	
	-05	664		-05	1010		-05	1310	
				-06	1030		-06	1455	
		•					-07	1480	

A FOR RIVET GRIPS GREATER THAN LISTED, USE HIGHEST VALUE SHOWN FOR THE DIAMETER PARTS TOO SHORT TO BE TESTED.

# **TABLE V**

RIVET COMPONENTS	MATERIAL	FINISH
SLEEVE	5056 ALUMINUM PER QQ-A-430	CLEAR CHROMATE PER MIL-DTL-5541, TYPE 1, CLASS 1A
SPINDLE	A-286 STAINLESS STEEL AMS 5737	PASSIVATE PER AMS-QQ-P-35 AND AMS2700 METHOD 1, TYPE 2 OR 8, CLASS 1
EXPANDER	A-286 STAINLESS STEEL AMS 5737	PASSIVATE PER AMS-QQ-P-35 AND AMS2700 METHOD 1, TYPE 2 OR 8, CLASS 1
WASHER	ALLOY STEEL	GOLD CHROMATE
LOCK RING	A-286 STAINLESS STEEL AMS 5731	PASSIVATE PER AMS-QQ-P-35 AND AMS2700 METHOD 1, TYPE 2 OR 8, CLASS 1

#### PART NUMBER EXAMPLE:



				_	DIMENSI	ONS IN INCHES
PER DCN 13721		N 13721	Current Design Activity	PROCUREMENT	DRAWN BY	C. MARTINEZ
K	K		CAGE Code OHDW7	SPEC NAS1686	CHECKED BY	SIGNATURE ON FILE
ISSUED	10/8/1993		MAX , NOMINAL,	HR'	3224-( )-( )	
REVISED	3/27/2015		USH SHEAR HEAD,	11113224-( )-( )	<i>/</i> ( <i>)</i>	
PAGE	3 OF 3	5056 ALUMINUM SLE	EVE/A-286 STAINLESS STEEL PIN		BLR13	9

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