lisi AEROSPACE
hi-shear corporation
2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509 U.S.A.

HI-SHEAR Corporation, USA
a LISI AEROSPACE Company
Design Holder
CAGE No. 73197

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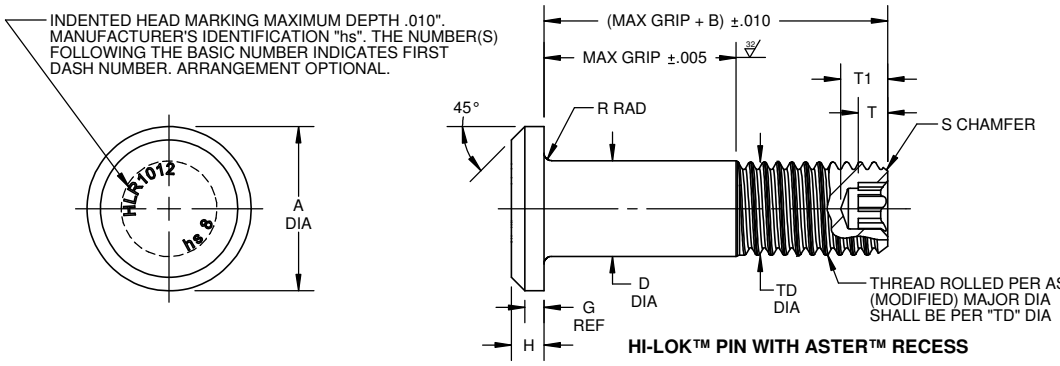
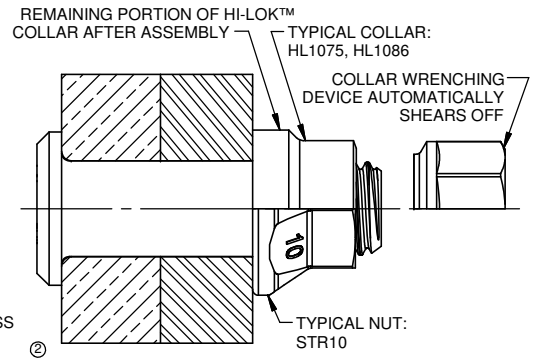
HTTP://WWW.LISI-AEROSPACE.COM/LICENSES



HI-LOK™ PIN WITH ASTER™ RECESS



RECOMMENDED COLLAR OR NUT FOR ASSEMBLY

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	G REF	H	R RAD	S CHAMFER REF	THREAD MODIFIED	ASTER™ RECESS			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
				WITHOUT ALUMINUM COATING	WITH ALUMINUM COATING							RECESS SIZE CODE	T1 DEPTH MAX	T DEPTH MIN		
5	5/32	.322 .306	.312	.1635 .1630	.1635 .1625	.1595 .1570	.030	.065 .055	.025 .015	1/32 X 37°	.1640-32 UNJC-3A	A5L-05	.118	.072	4,010	2,180
6	3/16	.377 .357	.325	.1895 .1890	.1895 .1885	.1840 .1810	.035	.074 .064	.025 .015	1/32 X 37°	.1900-32 UNJF-3A	A5L-06	.116	.069	5,380	3,180
7	7/32	.410 .390	.355	.2182 .2177	.2182 .2172	.2100 .2070	.040	.081 .071	.025 .015	1/32 X 37°	.2160-28 UNJF-3A	A5L-07	.117	.069	7,194	4,000
8	1/4	.440 .415	.395	.2495 .2490	.2495 .2485	.2440 .2410	.045	.090 .080	.025 .015	1/32 X 37°	.2500-28 UNJF-3A	A5L-08	.118	.069	9,300	5,820
10	5/16	.505 .475	.500	.3120 .3115	.3120 .3110	.3060 .3020	.055	.112 .102	.030 .020	3/64 X 37°	.3125-24 UNJF-3A	A5L-10	.127	.070	14,600	9,200
12	3/8	.600 .565	.545	.3745 .3740	.3745 .3735	.3680 .3640	.075	.140 .130	.030 .020	3/64 X 37°	.3750-24 UNJF-3A	A5L-12	.147	.087	21,000	14,000
14	7/16	.676 .641	.635	.4370 .4365	.4370 .4360	.4310 .4260	.095	.160 .150	.030 .020	3/64 X 37°	.4375-20 UNJF-3A	A5L-14	.196	.116	28,600	18,900
16	1/2	.770 .735	.685	.4995 .4990	.4995 .4985	.4930 .4880	.095	.188 .178	.030 .020	3/64 X 37°	.5000-20 UNJF-3A	A5L-16	.236	.139	37,300	25,600

SEE COLLAR/NUT STANDARDS FOR COLLAR/NUT STRENGTHS. LOWER STRENGTH (PIN OR COLLAR/NUT) DETERMINES SYSTEM STRENGTH.

DRAWN BY	DATE	TITLE
F.CARINGELLA	2016-07-07	HI-LOK™ PIN, ASTER™ RECESS PROTRUDING TENSION HEAD TITANIUM 1/16 GRIP VARIATION
APPROVED	DATE	
C.REITZ	2016-07-07	
REVISION	DATE	DRAWING NUMBER
2	F.CARINGELLA 2017-12-05	**HLR1012** 1 OF 2

HLR1012

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GENERAL NOTES:
1. Concentricity: "A" diameter "D" diameter within .010 FIM.
2. Dimensions are in inches and to be met after finish.
② 3. Surface texture per ASME B46.1.
4. Hole preparation per NAS618.
[5] US patent 6632057; other US & foreign patents granted and pending property of LISI AEROSPACE.
[6] Broach petals removed.
7. Use HLR1022 for oversize replacement.
② [8] Identification colorant is not allowed in the ASTER™ Recess.

MATERIAL: 6AL-4V titanium alloy per AMS4928 or AMS4967.

HEAT TREAT: 160,000 psi tensile minimum (95,000 psi shear minimum). ②

FINISH: HLR1012NKJ( )-( ) = HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 with color silver on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.

HLR1012NKK( )-( ) = Sulfuric acid anodizing per ISO8080 and HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only with color silver on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.

HLR1012NKL( )-( ) = HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only with color silver on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.

SPECIFICATION: HI-LOK™ Product Specification 409.
ASTER™ Recess per A5L-QA02.

CODE: First dash number indicates nominal diameter in 1/32nds.
Second dash number indicates maximum grip in 1/16ths.
See Finish note for explanation of code letters.

HOW TO ORDER Pin Part Number

② **EXAMPLES:** HLR1012 NKJ 8-8

- 8/16 or 1/2 Maximum Grip Length
- 8/32 or 1/4 Nominal Diameter Pin
- Finish Code
- Pin Basic Part Number

HLR1012

DRAWING NUMBER
HLR1012