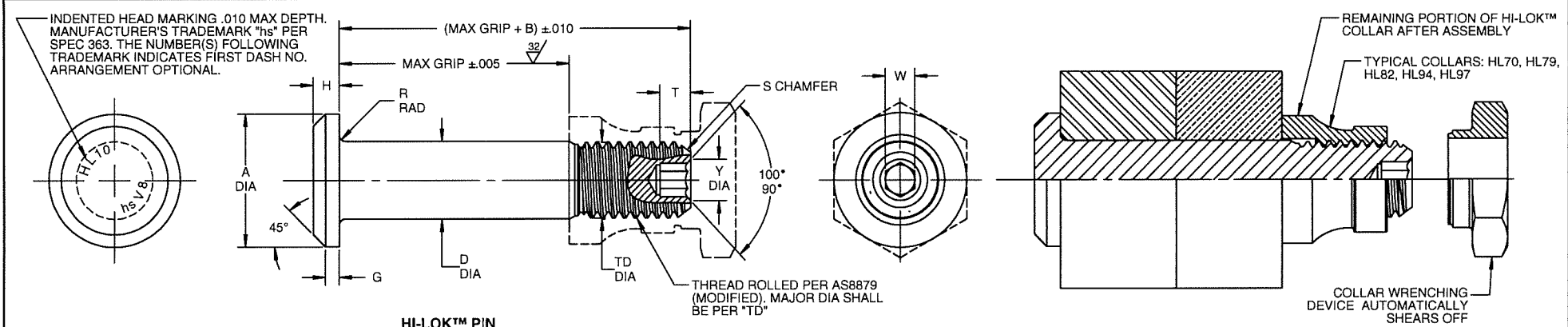




Hi-Shear Corporation, USA a LISI AEROSPACE Company	Design Holder	CAGE No. 73197	SPS TECHNOLOGIES, USA	Licensee	CAGE No. 56878
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					CAGE No. 17446



HI-LOK™ PIN

HI-LOK™ PIN AND COLLAR AFTER ASSEMBLY

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

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	G REF	H	R RAD	S CHAMFER REF	THREAD MODIFIED	SOCKET			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
				WITHOUT COATING OR SOLID FILM	AFTER COATING OR SOLID FILM							W HEX	T DEPTH	Y DIA		
4	1/8	.240 .225	.294	.1375 .1370	.1375 .1365	.1335 .1310	.020	.042 .032	.020 .010	1/32 x 37°	.1380-32 UNJC-3A	.0645 .0635	.100 .085	[8]	2,840	1,350
5	5/32	.262 .242	.312	.1635 .1630	.1635 .1625	.1595 .1570	.020	.047 .037	.025 .015	1/32 x 37°	.1640-32 UNJC-3A	.0645 .0635	.135 .115	.090 .075	4,010	1,940
6	3/16	.315 .295	.325	.1895 .1890	.1895 .1885	.1840 .1810	.025	.055 .045	.025 .015	1/32 x 37°	.1900-32 UNJF-3A	.0806 .0791	.135 .115	.119 .104	5,380	2,500
8	1/4	.412 .387	.395	.2495 .2490	.2495 .2485	.2440 .2410	.030	.069 .059	.025 .015	1/32 x 37°	.2500-28 UNJF-3A	.0967 .0947	.150 .130	.142 .122	9,300	4,300
10	5/16	.505 .475	.500	.3120 .3115	.3120 .3110	.3060 .3020	.035	.078 .068	.030 .020	3/64 x 37°	.3125-24 UNJF-3A	.1295 .1270	.170 .150	.180 .160	14,600	6,300
12	3/8	.600 .565	.545	.3745 .3740	.3745 .3735	.3680 .3640	.040	.088 .078	.030 .020	3/64 x 37°	.3750-24 UNJF-3A	.1617 .1582	.200 .180	.217 .197	21,000	8,700
14	7/16	.676 .641	.635	.4370 .4365	.4370 .4360	.4310 .4260	.045	.105 .093	.030 .020	3/64 x 37°	.4375-20 UNJF-3A	.1930 .1895	.230 .210	.253 .233	28,600	12,100
16	1/2	.770 .735	.685	.4995 .4990	.4995 .4985	.4930 .4880	.050	.115 .103	.030 .020	3/64 x 37°	.5000-20 UNJF-3A	.2242 .2207	.260 .240	.289 .269	37,300	15,300
18	9/16	.864 .829	.770	.5615 .5610	.5615 .5605	.5550 .5500	.055	.127 .112	.040 .025	1/16 x 37°	.5625-18 UNJF-3A	.2555 .2520	.290 .270	.326 .306	47,200	19,000
20	5/8	.953 .918	.825	.6240 .6235	.6240 .6230	.6180 .6120	.060	.137 .122	.040 .025	1/16 x 37°	.6250-18 UNJF-3A	.2555 .2520	.330 .305	.326 .306	58,300	23,000
24	3/4	1.108 1.066	1.050	.7490 .7485	.7490 .7480	.7430 .7370	.070	.151 .136	.045 .030	1/16 x 37°	.7500-16 UNJF-3A	.3185 .3150	.395 .365	.398 .378	83,900	30,700
28	7/8	1.285 1.241	1.210	.8740 .8735	.8740 .8730	.8680 .8610	.090	.187 .172	.050 .035	5/64 x 37°	.8750-14 UNJF-3A	.3820 .3780	.455 .425	.471 .451	114,000	45,000
32	1	1.468 1.424	1.390	.9990 .9985	.9990 .9980	.9930 .9860	.110	.218 .203	.060 .045	5/64 x 37°	1.0000-12 UNJF-3A	.5100 .5040	.580 .550	.618 .598	149,000	60,900

HL10

"HI-LOK", "HL", and "HI-KOTE", are Trademarks of Hi-Shear Corporation		
DRAWN BY Brlj	DATE 11-26-62	TITLE HI-LOK™ PIN PROTRUDING SHEAR HEAD TITANIUM 1/16 GRIP VARIATION
J.F.Obispo	7-29-14	
APPROVED Cessna	DATE 11-26-62	
REVISION (43)	DATE JFO 12-15-14	DRAWING NUMBER HL10

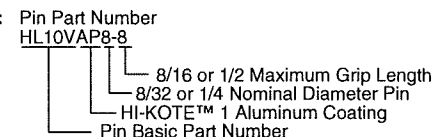


GENERAL NOTES:

1. Concentricity: "A" to "D" diameter within .010 FIM.
2. Dimensions to be met after finish.
3. Surface texture per ANSI B46.1.
4. Hole preparation per NAS618.
- 5 Maximum "D" diameter may be increased by .0002 to allow for solid film or aluminum coating application.
- 6 Broach petals removed.
- 7 Dimensions to be met before finish for "VY" code only.
- 8 Evidence of broken edge across points.
- 9 Non-lubed pins must be used with lubed collars or wet sealant.
10. Use HL110 for oversize replacement.
- 11 After February, 21st of 2015, HI-KOTE™ 1 aluminum pigmented coating will be replaced by REACH compliant HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on fasteners coated in European Union.

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 EXAMPLE:



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

HEAT TREAT: 160,000 psi tensile minimum (95,000 psi shear minimum for sizes up to 3/4;
90,000 psi shear minimum for 7/8 and larger).

- 11 FINISH: HL10V(-)(-) = Cetyl alcohol lube per Hi-Shear Spec. 305.
- 11 HL10VAP(-)(-) = HI-KOTE™ 1 aluminum pigmented coating per Hi-Shear Spec. 294, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 11 HL10VAZ(-)(-) = HI-KOTE™ 1 aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VBJ(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type II, Class 3, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VBR(-)(-) = Color code white on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 9 HL10VBU(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type I, Class 3, with color yellow on thread end.
- 9 HL10VBV(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type II, Class 3, with color blue on thread end.
- HL10VCB(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type I, Class 3, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 6 HL10VDK(-)(-) = Solid film lube per "KalGard™" FA. "KALGARD" is a trademark of Metal Improvement Company.
- HL10VF(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color blue, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VHD(-)(-) = I.V.D. aluminum coating per BAC5315, with color red on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 6 HL10VK(-)(-) = Solid film lube per Lubeco 905.
- HL10VLJ(-)(-) = Surface coating per Hi-Shear Spec. 306, Type II, and solid film lube per AS5272.
- HL10VLV(-)(-) = Phosphate fluoride treat and Esna-Lube No. 382 (Everlube Corp).
- HL10VR(-)(-) = Surface coating per Hi-Shear Spec. 306, Type II, and solid film lube per "Electrofilm" 4396.
- HL10VRA(-)(-) = Phosphate fluoride treat with color red on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VSY(-)(-) = Phosphate fluoride treat, solid film lube per AS5272, Type I, and color red on thread end.
- HL10VT(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color pink, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VTA(-)(-) = Anodize Ti-Shield III and HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VTB(-)(-) = HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VTF(-)(-) = HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292.
- HL10VTL(-)(-) = Anodize Ti-Shield III, solid film lube per DAG-258, and cetyl alcohol lube per Hi-Shear Spec. 305; or anodize per Tiodize Type II, solid film lube per TI-O-LUBE TAL-58, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VTT(-)(-) = Translube.
- HL10VUE(-)(-) = Surface coating per Hi-Shear Spec. 306, Type II, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL10VUU(-)(-) = Surface coating per Hi-Shear Spec. 306, Type II, and solid film lube per "Lubeco" 2123, Type II.
- HL10VV(-)(-) = Solid film lube per "Lubeco" 2123, Type II.
- 7 HL10VY(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color blue, and solid film lubricant per M88. (British Aircraft Corporation Spec. MP-1071).
- HL10VNKJ(-)(-) = 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.
- HL10VNKK(-)(-) = 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.
- HL10VNKL(-)(-) = 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 342.

DRAWING NUMBER

HL10

2 of 2

HL10