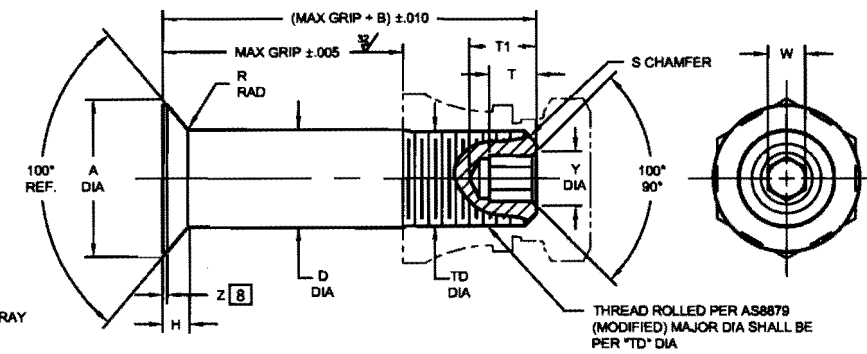
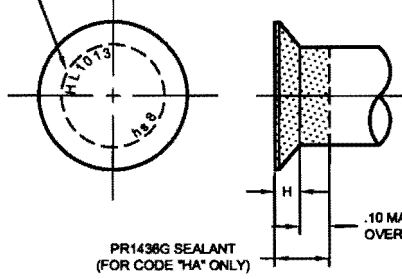
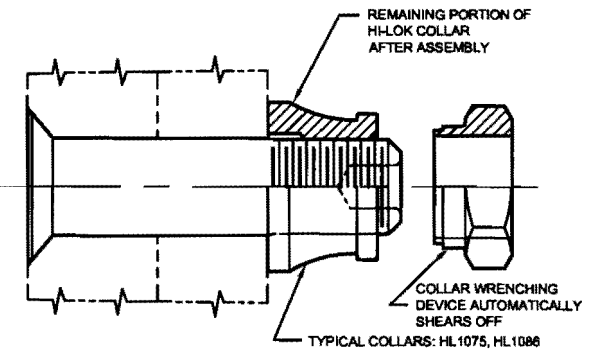


INDENTED HEAD MARKING MAXIMUM DEPTH .010".
 "hs" INDICATES HI-SHEAR TRADEMARK.
 THE NUMBER(S) FOLLOWING THE TRADEMARK
 INDICATES FIRST DASH NUMBER.
 ARRANGEMENT OPTIONAL.



HI-LOK® PIN



HI-LOK® PIN AND COLLAR AFTER ASSEMBLY

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		T1					S CHAMFER REF	THREAD	SOCKET				DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
				WITHOUT COATING OR SOLID FILM LUBE	WITH COATING OR SOLID FILM LUBE	TD DIA	F	H	R RAD	Z MAX			W HEX	T DEPTH	T1 DEPTH MAX	Y DIA		
5	5/32	.3304 .3256	.312	.1635 .1630	.1635 .1625	.1595 .1570	.004	.0700 .0680	.025 .015	.010	1/32" x 45"	8-32UNJC-3A Modified	.0801 .0791	.100 .080	.140	[7]	4,010	2,180
6	3/16	.3813 .3765	.325	.1895 .1890	.1895 .1885	.1840 .1810	.005	.0805 .0785	.030 .020	.015	1/32" x 45"	10-32UNJF-3A Modified	.0806 .0791	.100 .080	.140	.119 .104	5,380	3,180
8	1/4	.5066 .5018	.395	.2495 .2490	.2495 .2485	.2440 .2410	.006	.1080 .1060	.030 .020	.015	1/32" x 45"	1/4-28UNJF-3A Modified	.0967 .0947	.110 .090	.160	.142 .122	9,300	5,820
10	5/16	.6335 .6287	.500	.3120 .3115	.3120 .3110	.3060 .3020	.007	.1350 .1330	.040 .030	.015	3/64" x 45"	5/16-24UNJF-3A Modified	.1295 .1270	.130 .110	.200	.180 .160	14,600	9,200
12	3/8	.7604 .7556	.545	.3745 .3740	.3745 .3735	.3680 .3640	.008	.1620 .1600	.040 .030	.015	3/64" x 45"	3/8-24UNJF-3A Modified	.1617 .1582	.160 .140	.235	.217 .197	21,000	14,000
14	7/16	.8884 .8812	.635	.4370 .4365	.4370 .4360	.4310 .4260	.009	.1895 .1865	.050 .040	.022	3/64" x 45"	7/16-20UNJF-3A Modified	.1930 .1895	.190 .170	.280	.253 .233	28,600	18,900
16	1/2	1.0139 1.0068	.685	.4995 .4990	.4995 .4985	.4930 .4880	.010	.2160 .2130	.050 .040	.022	3/64" x 45"	1/2-20UNJF-3A Modified	.2242 .2207	.220 .200	.320	.289 .269	37,300	25,600
18	9/16	1.1408 1.1337	.770	.5615 .5610	.5615 .5605	.5550 .5500	.010	.2430 .2400	.050 .040	.025	1/16" x 45"	9/16-18UNJF-3A Modified	.2555 .2520	.260 .240	.360	.326 .306	47,200	32,400
20	5/8	1.2723 1.2651	.825	.6240 .6235	.6240 .6230	.6180 .6120	.010	.2720 .2690	.050 .040	.025	1/16" x 45"	5/8-18UNJF-3A Modified	.2555 .2520	.260 .240	.400	.326 .306	58,300	41,000
24	3/4	1.5308 1.5236	1.050	.7490 .7485	.7490 .7480	.7430 .7370	.012	.3280 .3250	.050 .040	.025	1/16" x 45"	3/4-16UNJF-3A Modified	.3185 .3150	.330 .300	.425	.398 .378	83,900	59,500

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

** The Double Shear values shown are based on cross sectional area for nominal diameter pin.

HL1013

DRAWN		DATE	TITLE	
VAN		11-2-73	HI-LOK® PIN	
APPROVED		DATE	100° FLUSH MS24694 TENSION HEAD	
JGWilcox		11-2-73	TITANIUM	
REVISION		DATE	1/16" GRIP VARIATION	
(13)		1-17-2012	(SPECIAL APPLICATION)	
			DRAWING NUMBER	
			HL1013	

GENERAL NOTES:

1. Head edge out of roundness shall not exceed "F".
2. Concentricity: Conical surface of head to "D" diameter within .003 FIM.
3. "H" is dimensioned from maximum "D" diameter.
4. Dimensions to be met after finish.
5. Surface texture per ANSI B46.1.
6. Hole preparation per NAS618.
7. Evidence of broken edge across points.
8. Curved or flat edge manufacturer's option.
9. Use HL1023 for oversize replacement.

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

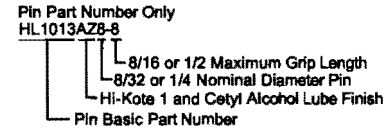
HEAT TREAT: 160,000 psi tensile minimum (95,000 psi shear minimum).

- FINISH:**
- HL1013(-)(-) = Cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013VF(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color blue, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013AZ(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color black on the thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 13 HL1013BB(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 on top of head only (.005 max overspray on the head bearing surface permissible) with color blue on the thread end. Top of head painted in accordance with BAC5684, Type 5 and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 13 HL1013BN(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 on threads (no overspray on the shank is allowed) and top of head only (.005 max overspray on the head bearing surface permissible) with color white on thread end. Top of head painted in accordance with BAC5684, Type 5 and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013HA(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color black on the thread end, and apply precoat No. PR1436G sealant (.002-.005 thick), and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013RA(-)(-) = Phosphate fluoride treat with color code red on the thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013GM(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 on threads (no overspray on the shank is allowed) and top of head only (.005 max overspray on the head bearing surface permissible) with color white on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013HD(-)(-) = I.V.D. aluminum plating per BAC5315, with color code red on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013EF(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 on top of head only (.005 max overspray on the head bearing surface permissible) with color blue on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

SPECIFICATION: Hi-Lok Product Specification 342.

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:**



HL1013

DRAWING NUMBER

HL1013

Sheet 2 of 2