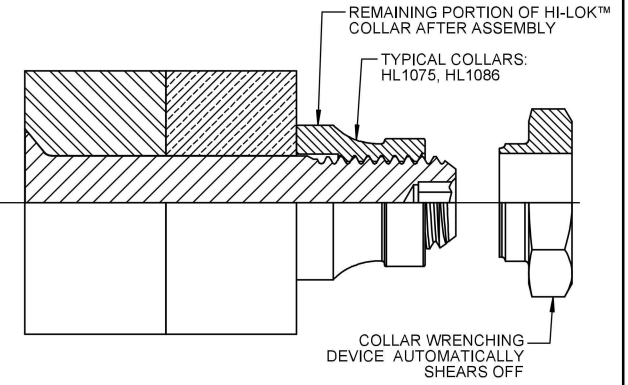


HI-LOK™ PIN



HI-LOK™ PIN AND COLLAR AFTER ASSEMBLY

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	F REF	H	R RAD	Z MAX	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	T1 DEPTH MAX	Y DIA		
5							NOTE: USE HL1023 ()6-()											
6	7/32	.3813 .3765	.325	.2182 .2177	.2182 .2172	.1840 .1810	.005	.0684 .0664	.030 .020	.015	1/32 x 37°	.1900-32 UNJF-3A	.0806 .0791	.100 .080	.140	.119 .104	7,100	3,180
8	9/32	.5066 .5018	.395	.2807 .2802	.2807 .2797	.2440 .2410	.006	.0948 .0928	.030 .020	.015	1/32 x 37°	.2500-28 UNJF-3A	.0967 .0947	.110 .090	.160	.142 .122	11,800	5,820
10	11/32	.6335 .6287	.500	.3432 .3427	.3432 .3422	.3060 .3020	.007	.1218 .1198	.040 .030	.015	3/64 x 37°	.3125-24 UNJF-3A	.1295 .1270	.130 .110	.200	.180 .160	17,600	9,200
12	13/32	.7604 .7556	.545	.4057 .4052	.4057 .4047	.3680 .3640	.008	.1488 .1468	.040 .030	.015	3/64 x 37°	.3750-24 UNJF-3A	.1617 .1582	.160 .140	.235	.217 .197	24,600	14,000
14	15/32	.8884 .8812	.635	.4682 .4677	.4682 .4672	.4310 .4260	.009	.1763 .1733	.040 .030	.022	3/64 x 37°	.4375-20 UNJF-3A	.1930 .1895	.190 .170	.280	.253 .233	32,700	18,900
16	17/32	1.0139 1.0068	.685	.5307 .5302	.5307 .5297	.4930 .4880	.010	.2027 .1997	.050 .040	.022	3/64 x 37°	.5000-20 UNJF-3A	.2242 .2207	.220 .200	.320	.289 .269	42,700	25,600
18	19/32	1.1408 1.1337	.770	.5927 .5922	.5927 .5917	.5550 .5500	.010	.2300 .2270	.050 .040	.025	1/16 x 37°	.5625-18 UNJF-3A	.2555 .2520	.260 .240	.360	.326 .306	52,400	32,400
20	21/32	1.2723 1.2651	.825	.6552 .6547	.6552 .6542	.6180 .6120	.010	.2589 .2559	.050 .040	.025	1/16 x 37°	.6250-18 UNJF-3A	.2555 .2520	.260 .240	.400	.326 .306	64,100	41,000
24	25/32	1.5308 1.5236	1.050	.7802 .7797	.7802 .7792	.7430 .7370	.012	.3149 .3119	.050 .040	.025	1/16 x 37°	.7500-16 UNJF-3A	.3185 .3150	.330 .300	.425	.398 .378	90,900	59,500

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

HL1033

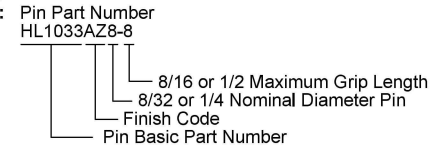
"HI-LOK", "HL", AND "HI-KOTE",
ARE TRADEMARKS OF HI-SHEAR CORPORATION

DRAWN BY J.F.OBISPO	DATE 1995-03-22	TITLE HI-LOK™ PIN 100° FLUSH MS24694 TENSION HEAD TITANIUM 1/16 GRIP VARIATION, 1/32 OVERSIZE (SPECIAL APPLICATION)
APPROVED E.E.B	DATE 1995-03-23	
REVISION 13	DATE K. PHAM 2022-03-10	DRAWING NUMBER HL1033

- 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. Dimensions are in inches and to be met after finish.
 4. Surface texture per ASME B46.1.
 5. Hole preparation per NAS618.
 6. "H" is dimensioned from maximum "D" diameter.
 - 7 Curved or flat edge manufacturer's option.
 8. Oversize replacement for HL1013 and HL1023.
 - 9 After February, 21st of 2015, HI-KOTE™ 1 aluminum pigmented coating per Hi-Shear Spec. 294 will be replaced by REACH compliant HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on fasteners coated in UK and European Union.

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).

- FINISH:**
- HL1033-()-() = Cetyl alcohol lube per Hi-Shear Spec. 305.
 - 13 9 HL1033AZ()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 13 9 HL1033BB()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented 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 9 HL1033BN()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads (no overspray on the shank 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.
 - 13 9 HL1033EF()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented 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.
 - 13 9 HL1033EZ()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end. Top of head is painted in accordance with BAC5684, Type 5 and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 13 9 HL1033GM()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads (no overspray on the shank 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.
 - 13 9 HL1033HA()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end, and apply Precoat No. PR1436G sealant (.002-.005 thick), and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1033HD()-() = I.V.D. aluminum coating per BAC5315, with color red on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 13 HL1033RA()-() = Phosphate fluoride treat with color red on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1033VF()-() = Anodize per Hi-Shear Spec 306, Type I, color blue, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1033NKJ()-() = 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.
 - HL1033NKK()-() = 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.
 - HL1033NKL()-() = 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.
 - HL1033SY()-() = Phosphate Fluoride per BAC5861, Solid Film Lube per AS5272, Type I on Unplated Titanium, with color red on thread end.

SPECIFICATION: HI-LOK™ Product Specification 342.

CODE: First dash number indicates nominal diameter in 1/32nds of the pin which HL1033 oversize pin replaces.
 Second dash number indicates maximum grip in 1/16ths.
 See Finish note for explanation of code letters.

DRAWING NUMBER

HL1033

2 OF 2