



PULL-IN™ PIN

EXAMPLE OF PULL-IN™ PIN AND NUT/COLLAR AFTER ASSEMBLY

TABLE 1

FIRST DASH NO.	PIN NOM DIA	A DIA REF	B REF	C REF	D DIA		TD DIA	H MAX	R RAD	S CHAMFER REF	E RAD	W DIA	THREAD MODIFIED	INTERNAL THREAD LEFT HAND 5			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM	TENSION FATIGUE POUNDS MAX
					WITHOUT COATING OR FINISH	AFTER COATING OR FINISH								T1 MAX	THREAD SIZE UNJF-2B	LOAD POUNDS MAX			
20	11/16	1.130	.935	.319	.6865 .6860	.6865 .6855	.6180 .6120	.406	.040 .025	1/16 X 37°	.750	1.437 1.421	.6250-18 UNJF-3A	.520	3/8-SP	14,200	70,500	38,360	13,470
24	13/16	1.291	1.125	.358	.8115 .8110	.8115 .8105	.7430 .7370	.547	.045 .030	1/16 X 37°	.875	1.689 1.673	.7500-16 UNJF-3A	.625	7/16-SP	19,109	98,600	55,600	19,400
28	15/16	1.449	1.315	.390	.9365 .9360	.9365 .9355	.8680 .8610	.634	.050 .035	5/64 X 37°	1.000	1.921 1.906	.8750-14 UNJF-3A	.725	1/2-SP	31,500	131,200	67,900	25,200
32	1-1/16	1.602	1.500	.437	1.0615 1.0610	1.0615 1.0605	.9930 .9860	.713	.060 .045	5/64 X 37°	1.125	2.134 2.118	1.0000-12 UNJF-3A	.830	9/16-SP	38,218	163,800	88,600	31,912

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

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- ② GENERAL NOTES:
1. Concentricity: "A" to "D" diameter within .010 FIM.
  2. Dimensions in inches, to be met after finish and before solid film lubricant, where applicable.
  3. Surface texture per ASME B46.1.
  4. Hole preparation per HSL/HPL-IS01: PULL-STEM™ / PULL-IN™ fastener installation specification for HSL/HPL pins.
  5. The maximum allowable installation load must not exceed the maximum load values in table or thread/mandrel failure may occur.
  6. One line indicates Blanc Aero Industries, France as manufacturer.
  7. HPL1536 is the oversize replacement for HPL736.
  8. Mandrel is sold separately.
  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 the European Union.

THIS AREA OF SPECIAL CONFIGURATION AND COLD WORKING TO MEET PHYSICAL REQUIREMENTS



VIEW A

HI-LITE™ THREAD TRANSITION AREA  
 SEE SPECIFICATION FOR INSPECTION

"PULL-IN", "HPL", "HI-LITE" AND "HI-KOTE", ARE TRADEMARKS OF HI-SHEAR CORPORATION	
DRAWN BY F.CARINGELLA	DATE 2017-03-22
TITLE PULL-IN™ PIN SELF-ALIGNING TENSION HEAD 6AL-4V TITANIUM ALLOY SPECIAL THREAD 1/16 GRIP VARIATION, 1/16 OVERSIZE	
APPROVED J. LO	DATE 2017-03-22
REVISION 2	DATE F.CARINGELLA 2017-03-22
DRAWING NUMBER <b>HPL1536</b>	

© **FINISH:**

PART DESCRIPTION	PART NUMBER	FINISH	LUBE	IDENTIFICATION
TITANIUM PIN	HPL1536BM(-)(-)	HI-KOTE™ 1 NC ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294	CETYL ALCOHOL LUBE PER HI-SHEAR SPEC. 305	WHITE COLOR ON THREAD END
	HPL1536KM(-)(-) [9]	HI-KOTE™ 1 ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294		
	HPL1536NKM(-)(-)	HI-KOTE™ 1 NC ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294		
TITANIUM WASHER	HPL1536(-)APW [9]	HI-KOTE™ 1 ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294	CETYL ALCOHOL LUBE PER HI-SHEAR SPEC. 305	WHITE COLOR SPOT ON OUTSIDE DIAMETER
	HPL1536(-)NAPW	HI-KOTE™ 1 NC ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294		

**MATERIAL:** Pin = 6AL-4V Titanium alloy per AMS4928, AMS4967 or British Standard 2TA 28.  
Washer = 6AL-4V Titanium alloy per AMS4928 or AM4967 or British Standard 2TA 28.

**HEAT TREAT:** Pin = 160,000 psi tensile minimum and 95,000 psi shear minimum for size up to 3/4.  
150,000 psi tensile and 90,000 psi shear minimum for 7/8 and larger  
Washer = 160,000 psi tensile minimum.

© **SPECIFICATION:** PULL-IN™ Product Specification N°412.

**CODE:** First dash number indicates nominal diameter in 1/32nds of the pin which HPL1536 oversize pin replaces.  
Second dash number indicates maximum grip in 1/16ths.  
See "Finish" note for explanation of code letters.

© **HOW TO ORDER**

**EXAMPLE:**

Pin-Washer Assembly Part Number  
HPL1536 KM 20 APW 34

