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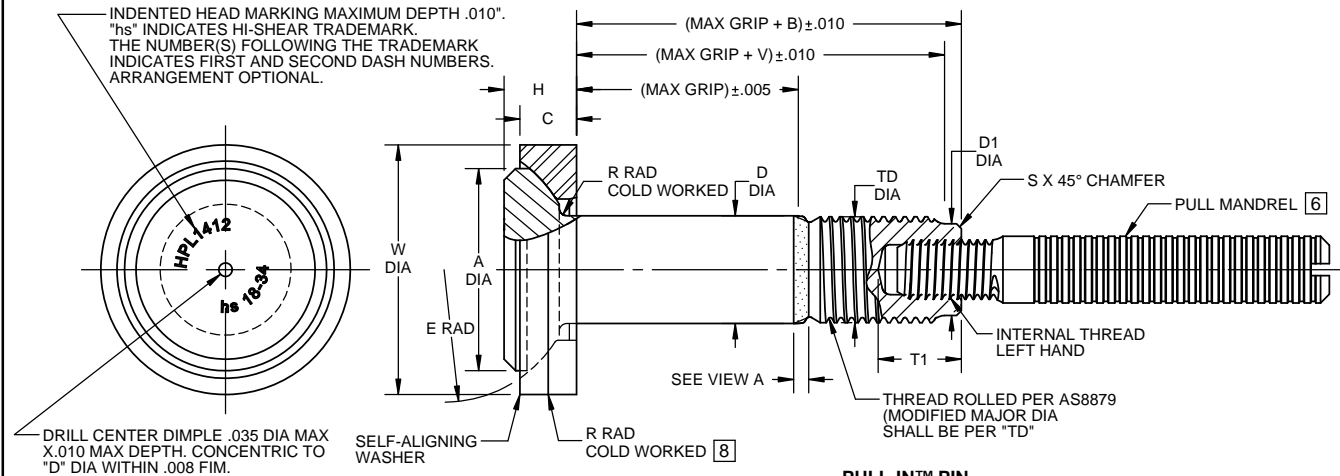


TABLE 1

PULL-IN™ PIN

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

FIRST DASH NO.	PIN NOM DIA	A DIA REF	B REF	D DIA	TD DIA	D1 DIA	W DIA	H MAX	S CHAMFER REF	V REF	E RAD	R RAD ROLLED	C REF	THREAD MODIFIED	INTERNAL THREAD LEFT HAND ⑨			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM	TENSION-TENSION FATIGUE POUNDS MAX
															T1 MAX	THREAD SIZE UNJF-2B	LOAD POUNDS MAX			
18	9/16	1.051	.845	.5615 .5605	.5537 .5500	.4783 .4764	1.307 1.300	.382	.020	.701	.688	.040 .025	.303	.5625-18 UNJF-3A	.465	5/16-SP	11,500	47,200	32,400	11,300
20	5/8	1.130	.935	.6240 .6230	.6165 .6120	.5413 .5394	1.437 1.430	.405	.020	.733	.750	.040 .025	.319	.6250-18 UNJF-3A	.520	3/8-SP	14,200	58,300	41,000	14,400
24	3/4	1.291	1.125	.7490 .7480	.7415 .7370	.6575 .6555	1.689 1.681	.547	.020	.927	.875	.045 .030	.358	.7500-16 UNJF-3A	.625	7/16-SP	19,109	83,900	59,500	21,000
28	7/8	1.449	1.315	.8740 .8730	.8663 .8610	.7717 .7697	1.921 1.913	.634	.020	1.021	1.000	.050 .035	.390	.8750-14 UNJF-3A	.725	1/2-SP	31,500	111,100	77,500	28,800
32	1	1.602	1.500	.9990 .9980	.9913 .9860	.8819 .8799	2.134 2.126	.712	.020	1.151	1.125	.060 .045	.437	1.0000-12 UNJF-3A	.830	9/16-SP	38,218	140,724	100,900	37,600

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

- GENERAL NOTES:**
- Concentricity: "A" to "D" diameter within .010 FIM.
 - Dimensions in inches and to be met after finish.
 - Surface texture per ASME B46.1.
 - Hole preparation per HSL/HPL-IS01: PULL-STEM™ / PULL-IN™ fastener installation specification for HSL/HPL pins.
 - Use HPL1422 for oversize replacement.
 - Mandrel is sold separately.
 - Product in accordance with LISI AEROSPACE Product Specification N°415.
 - One line indicates Blanc Aero Industries, France as manufacturer.
 - The maximum allowable installation load must not exceed the maximum load values in table or thread/mandrel failure may occur.
 - 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

"HI-KOTE", HI-LITE", PULL-IN" AND "HPL", ARE TRADEMARKS OF HI-SHEAR CORPORATION			
DRAWN BY ASSYSTEM	DATE 2005-03-12	TITLE PULL-IN™ PIN SELF-ALIGNING TENSION HEAD INTERFERENCE FIT TITANIUM 1/16 GRIP VARIATION	
APPROVED J.GOYER	DATE 2005-03-12	DRAWING NUMBER HPL1412	
REVISION ②	DATE M.BEARD 2017-10-26	1 OF 2	

FINISH TABLE

Part	Finish, Lube, ID Code	Finish	Lube	Identification
Titanium Pin	10 KM	HI-KOTE™ 1 Aluminum Pigmented Coating per Hi-Shear Spec. 294	Cetyl alcohol lube per Hi-Shear Spec. 305	White color on pin end
	NKM	HI-KOTE™ 1 NC Aluminum Pigmented Coating per Hi-Shear Spec. 294		
Titanium Washer	10 APW	HI-KOTE™ 1 Aluminum Pigmented Coating per Hi-Shear Spec. 294	Cetyl alcohol lube per Hi-Shear Spec. 305	White spot on outside diameter
	NAPW	HI-KOTE™ 1 NC Aluminum Pigmented Coating per Hi-Shear Spec. 294		

MATERIAL: Pin = 6Al-4V Titanium alloy per AMS4928 or AMS4967.
 Washer = 6Al-4V Titanium alloy per AMS4928 or AMS4967.

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

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-Washer Assembly Part Number
 © **EXAMPLE:** HPL1412 NKM 18 NAPW 34

└─ 34/16 Maximum Grip Length
 └─ Washer finish code
 └─ 18/32 or 9/16 Nominal Diameter Pin
 └─ Finish Code
 └─ Pin Basic Part Number

HPL1412