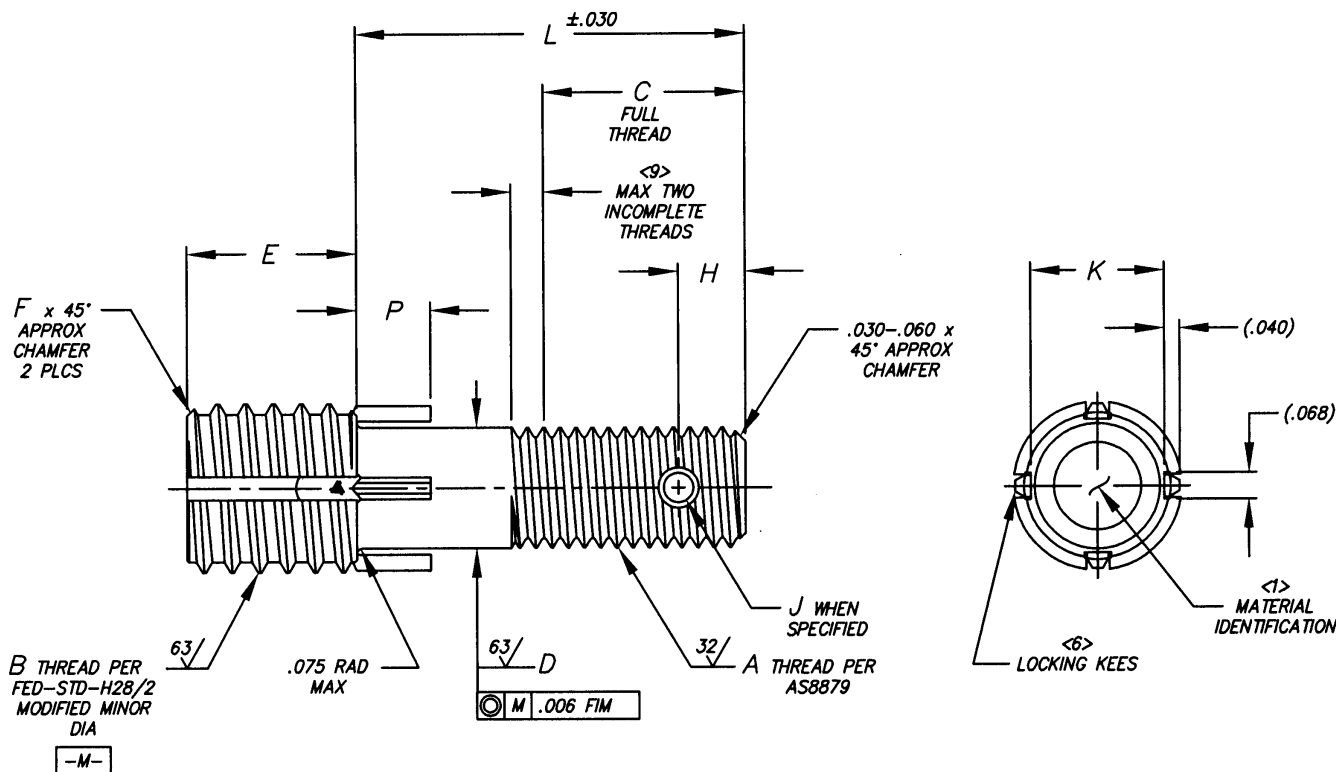


Camloc . Delron . Deutsch . Huck . K-Fast . Kaynar . Microdot . RAM . Rosan . Screwcorp . Tridair . Voi-Shan

MANUFACTURE OF THE PROPRIETARY PARTS SHOWN HERE
WITHOUT WRITTEN CONSENT IS ABSOLUTELY PROHIBITED



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PART NUMBER	A THREAD SIZE	B THREAD SIZE		C ±.030 <9>	D DIA <9>	E ±.015	(F)	H ±.020	J DIA ±.010	(K)	L MIN LENGTH <4>	(P)
		SIZE UNC-2A	MODIFIED MINOR DIA									
KNNS1032J	.1900-32UNJF-3A	.3125-18	.249-.256	.410	.185-.189	.312	.250	.141	.070	.220	-6 (.375)	.160
KNNS1024J	.1900-24UNJC-3A											
KNNS428J	.2500-28UNJF-3A	.3750-16	.312-.320	.470	.245-.249	.375	.310	.156	.076	.284	-6 (.375)	.190
KNNS420J	.2500-20UNJC-3A											
KNNS524J	.3125-24UNJF-3A	.4375-14	.375-.383	.530	.308-.312	.437	.375	.172	.076	.345	-9 (.562)	.190
KNNS518J	.3125-18UNJC-3A											
KNNS624J	.3750-24UNJF-3A	.5000-13	.432-.440	.640	.370-.374	.500	.430	.172	.106	.407	-10 (.625)	.190
KNNS616J	.3750-16UNJC-3A											
KNNS720J	.4375-20UNJF-3A	.5625-12	.495-.503	.660	.433-.437	.562	.495	.172	.106	.469	-10 (.625)	.190
KNNS714J	.4375-14UNJC-3A											
KNNS820J	.5000-20UNJF-3A	.6250-11	.551-.565	.780	.495-.499	.625	.550	.172	.106	.532	-12 (.750)	.190
KNNS813J	.5000-13UNJC-3A											

INTERIM DOCUMENT REVISION		
Rev.	Date	DAF#
A1	10/8/2018	117431

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REV. LETTER AND DATE A 11/27/13 CA			PROJECT NO.
DAF NUMBER 102743			SALES DRAWING NO. KNNS() SHEET 1 OF 3

UNLESS OTHERWISE SPECIFIED ANGLES = ±3°
DIMENSIONS ARE IN INCHES & DECIMALS .XX = ±.02
ASME Y14.5M TOLERANCES: .XXX = ±.010

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NOTES:

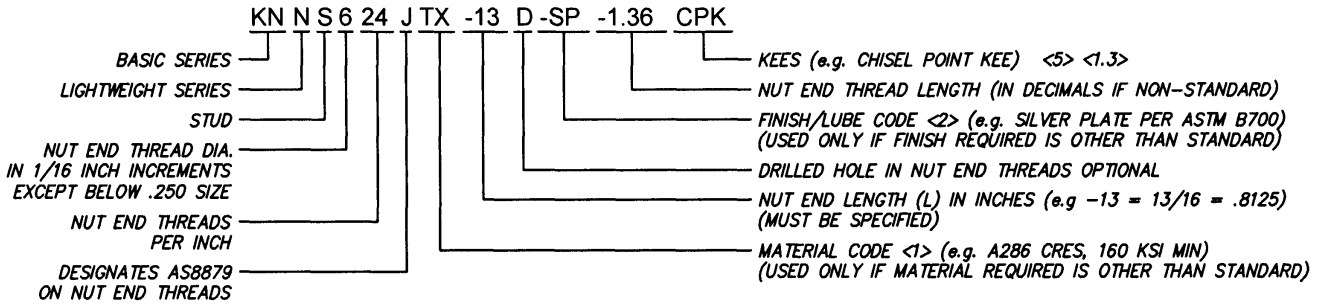
- <1> MATERIAL CODES:
- 1.1 STANDARD MATERIAL IS: S = 303 CRES PER CHEMICAL COMPOSITION AMS 5640 OR ASTM A582, OR 303 Se PER CHEMICAL COMPOSITION AMS 5640, AMS 5738 OR ASTM A582.
- 1.2 OPTIONAL MATERIALS WITH THEIR DESIGNATED FINISH:
- F = C1215 CARBON STEEL OR EQUIVALENT PER ASTM A108. CAD PLATE PER AMS-QQ-P-416, TYPE I, CLASS 3. IDENTIFIED BY THREE PARALLEL DASH MARKS ON TOP OF NUT.
- M = CHROME MOLY STEEL, TYPE 4140 PER AMS 6382 OR TYPE 8740 PER AMS 6322. 125 KSI MINIMUM TENSILE STRENGTH. IDENTIFIED BY TWO NON-PARALLEL DASH MARKS ON TOP OF NUT. CAD PLATE PER AMS-QQ-P-416, TYPE I, CLASS 3.
- MX = CHROME MOLY STEEL, TYPE 4140 PER AMS 6382 OR TYPE 8740 PER AMS 6322. 160 KSI MINIMUM TENSILE STRENGTH. IDENTIFIED BY TWO PARALLEL DASH MARKS ON TOP OF NUT. CAD PLATE PER AMS-QQ-P-416, TYPE I, CLASS 3.
- NIT = ARMC0, NITRONIC 60 CRES PER ASTM A479 OR AMS 5848. PASSIVATE PER AMS 2700. IDENTIFIED BY FOUR (4) DASH MARKS APPROXIMATELY 90° APART.
- T = A286 CRES PER AMS 5731, AMS 5732 OR AMS 5737. 140 KSI MINIMUM TENSILE STRENGTH. IDENTIFIED BY ONE DASH MARK ON TOP OF NUT. PASSIVATE PER AMS 2700.
- TX = A286 CRES PER AMS 5731, AMS 5732 OR AMS 5737. 160 KSI MINIMUM TENSILE STRENGTH. IDENTIFIED BY LETTER "H" ON TOP OF NUT. PASSIVATE PER AMS 2700.

<1.3> KEE MATERIAL FOR ALL STANDARD AND SPECIAL MATERIAL STUDS IS 302 CRES PER ASTM A580 (CHEMISTRY ONLY). HRC 42 MINIMUM.

- <2> FINISH CODES:
- NO CODE= PASSIVATE PER AMS 2700.
- SP = SILVER PLATE PER ASTM B700, TYPE I, GRADE A, CLASS N.
- SX = CAD. PLATE PER AMS-QQ-P-416 TYPE I, CLASS 3.
- SY = CAD. PLATE PER AMS-QQ-P-416 TYPE II, CLASS 3.
- SZ = CAD. PLATE PER AMS-QQ-P-416 TYPE II, CLASS 2.

3. (FOR ADDITIONAL CODES, REFER TO S-70248.)

<4> PART NUMBER EXAMPLE: KNNS624JTX-13D-SP-1.36CPK



- <5> KEE CODES:
- "NO CODE" = STANDARD KEE CONFIGURATION
- CPK = CHISEL POINT KEE CONFIGURATION, 45 HRC MINIMUM.
- <6> STUDS WITH NUT END THREAD SIZE .2500 AND UNDER ARE FURNISHED WITH TWO (2) LOCKING KEES. SIZE .3125 AND ABOVE ARE FURNISHED WITH FOUR (4) LOCKING KEES.
- <7> THE SHEAR ENGAGEMENT VALUES ARE FOR DESIGN PURPOSES ONLY.

8. UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: .XX ±.02, .XXX ±.010 AND ANGLES ±3°.

ALL DIMENSIONS APPLY AFTER PLATING BUT PRIOR TO LUBRICATION.

- <9> DASH NUMBER -6 THRU -8 FOR 1032 AND 1024 SIZES, -6 THRU -9 FOR 428 AND 420 SIZES, -9 AND -10 FOR 524 AND 518 SIZES, -10 AND -11 FOR 624 AND 616 SIZES, -10 THRU -12 FOR 720 AND 714 SIZES, AND -12 THRU -14 FOR 820 AND 813 SIZES ARE TO BE THREADED TO THE STUD END AS FOLLOWS:
- THE MAXIMUM DISTANCE FROM THE STUD END TO THE FIRST FULL THREAD SHALL BE EQUAL TO THE SUM OF THE MAXIMUM FILLET RADIUS AND A MAXIMUM OF TWO INCOMPLETE THREADS. INCOMPLETE THREADS NOT TO ENTER FILLET AREA. "D" DIA. IS NOT APPLICABLE ON "SHORT LENGTHS" LISTED ABOVE IN ORDER TO MAXIMIZE THREAD LENGTH.

10. ALL "MS" EQUIVALENT STUDS SHALL CONFORM TO NASM45915.

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		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & ASME Y14.5M TOLERANCES:	ANGLES DECIMALS = ±3° .XX = ±.02 .XXX = ±.010
		KNNS() SHEET 2 OF 3	

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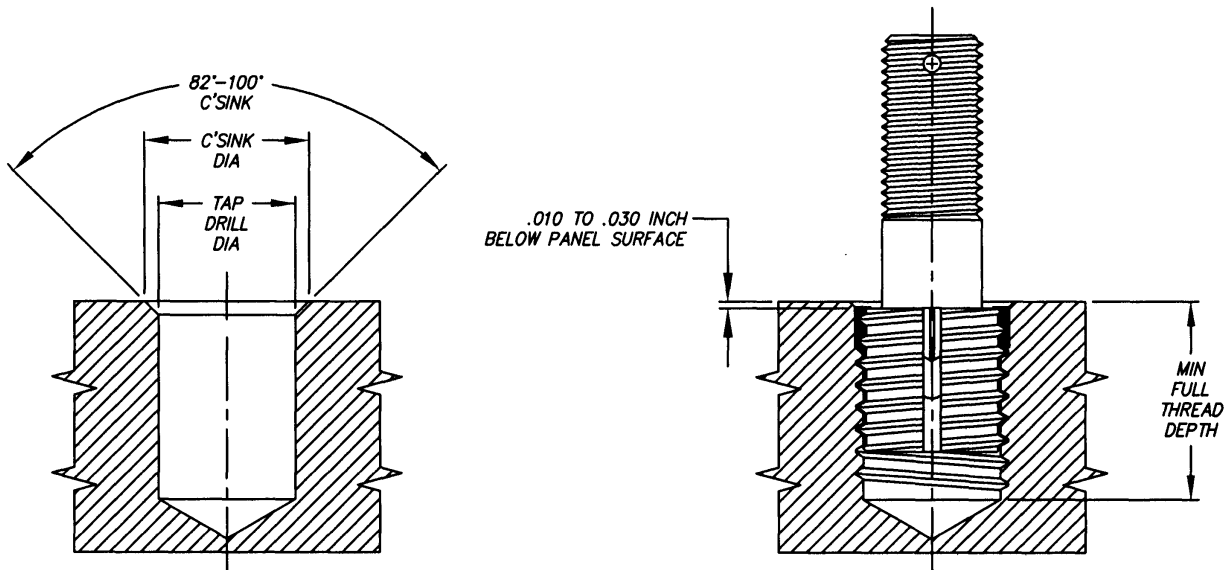


TABLE II

PART NUMBER	INSTALLATION DATA					REMOVAL DATA	
	TAP DRILL DIA.	C'SINK DIA. +.010 -.000	THREAD TAP		INSTALLATION TOOL	DRILL	
			SIZE UNC-2B	MIN. FULL THD DEPTH	PART NUMBER	SIZE	DEPTH
KNNS1032J	.272	.323	.3125-18	.37	TNS 010	.219	.156
KNNS1024J							
KNNS428J	.332	.385	.3750-16	.43	TNS 4	.281	.188
KNNS420J							
KNNS524J	.397	.447	.4375-14	.50	TNS 5	.344	
KNNS518J							
KNNS624J	.453	.510	.5000-13	.56	TNS 6	.406	
KNNS616J							
KNNS720J	.516	.572	.5625-12	.62	TNS 7	.469	
KNNS714J							
KNNS820J	.578	.635	.6250-11	.68	TNS 8	.531	
KNNS813J							

11. INSTALLATION PROCEDURES:
- 11.1 PREPARE PANEL PER THE DIMENSIONS SHOWN IN TABLE II.
- 11.2 SELECT APPROPRIATE INSTALLATION TOOL FROM TABLE II.
- 11.3 SCREW IN STUD WITH FINGERS OR INSTALLATION TOOL. STUD IS DESIGNED TO STOP AT CORRECT DEPTH.
- 11.4 DRIVE LOCKING KEES DOWN USING THE INSTALLATION TOOL.
12. REMOVAL PROCEDURES:
- 12.1 USE THE DRILL SIZES AND DEPTHS SPECIFIED IN TABLE II TO REMOVE MATERIAL BETWEEN THE KEES.
- 12.2 DEFLECT KEES INWARD AND BREAK OFF.
- 12.3 REMOVE INSERT WITH AN "EASY OUT" TYPE TOOL.

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		ANGLES DECIMALS = ±3" .XX = ±.02 .XXX = ±.010		