

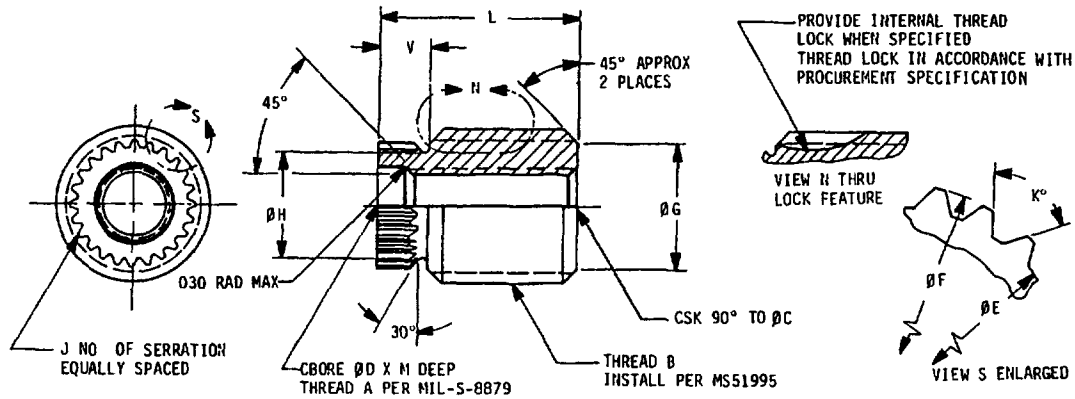
FED SUP CLASS
5340

TABLE I - SHORT LENGTH

DASH NO.	A INTERNAL THREAD UNJF-3B	B EXTERNAL THREAD			C	D	ØE + .005 - .004	ØF + .007 - .002	ØG + .000 - .015	ØH MIN	J	K° +2° -1°	L ± .020	M ± .015	V ± .015	LOCKRING MS51997 BASIC DASH NO
		SEE REQT 4	PITCH DIA	MINOR DIA												
-503	1900-32	4375-20	4073 4053	3784 3700	206 196	201	316	345	370	294	20	102°	400	078	155	104P
-504	2500-28	5000-20	4698 4678	4409 4325	267 257	261	380	407	432	357	24	102°	542	089	200	105P
-505	3125-24	6250-18	5914 5894	5593 5498	336 321	324	456	487	549	433	26	102°	678	099	200	106P
-506	3750-24	7500-16	7122 7097	6761 6656	398 383	386	567	601	665	535	26	111°	750	099	200	107P
-507	4375-20	8750-14	8316 8291	7904 7786	462 447	449	687	721	778	645	30	111°	813	117	255	108P
-508	5000-20	1 0000-12	9491 9466	9010 8878	525 510	511	783	820	887	741	30	111°	948	117	255	109P

TABLE II - MEDIUM LENGTH

DASH NO	A INTERNAL THREAD UNJF-3B	B EXTERNAL THREAD			C	D	ØE + .005 - .004	ØF + .007 - .002	ØG + .000 - .015	ØH MIN	J	K° +2° -1°	L ± .020	M ± .015	V ± .015	LOCKRING MS51997 BASIC DASH NO
		SEE REQT 4	PITCH DIA	MINOR DIA												
-643	1900-32	4375-20	4073 4053	3784 3700	206 196	201	316	345	370	294	20	102°	448	078	155	104P
-644	2500-28	5000-20	4698 4678	4409 4325	267 257	261	380	407	432	357	24	102°	616	089	200	105P
-645	3125-24	6250-18	5914 5894	5593 5498	336 321	324	456	487	549	433	26	102°	776	099	200	106P
-646	3750-24	7500-16	7122 7097	6761 6656	398 383	386	567	601	665	535	26	111°	872	099	200	107P
-647	4375-20	8750-14	8316 8291	7904 7786	462 447	449	687	721	778	645	30	111°	948	117	255	108P
-648	5000-20	1 0000-12	9491 9466	9010 8878	525 510	511	783	820	887	741	30	111°	1 101	117	255	109P

P A Other Cust	AR AS 99	INTERNATIONAL INTEREST	TITLE INSERT, SCREW THREAD- LOCKED IN, RING LOCKED, SERRATED, HIGH STRENGTH, OVERSIZE REPLACER	MILITARY STANDARD MS51498
PROCUREMENT SPECIFICATION MIL-I-45910			SUPERSEDES:	PAGE 1 OF 2

User activities
Army - MI
Navy - MC, OSReview activities
Army - AT, AV, GL, ME
Air Force - 11, 82
NSA - NS
DLA - IS

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

APPROVED 11 MAR 85
REVISED

User activities
Army - M1
Navy - MC, OS

Review activities.
Army - AT, AV, G, ME
Air Force - 11, 82
NSA - NS
DLA - IS

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TABLE III - LONG LENGTH

DASH NO	A INTERNAL THREAD UNJF-3B	B EXTERNAL THREAD			C	D	DE + .005 - .004	DF + .007 - .002	DG + .000 - .015	DH MIN	J	K° +2° -1°	L ± .020	M + .015	V ± .015	LOCKRING MS51997 BASIC DASH NO
		SEE REQT 4	PITCH DIA	MINOR DIA												
-803	1900-32	4375-20	4073 4053	3784 3700	206 196	.201	316	345	370	294	20	102°	538	078	155	104P
-804	2500-28	5000-20	4698 4678	4409 4325	267 257	261	380	407	432	357	24	102°	731	089	200	105P
-805	3125-24	6250-18	5914 5894	5593 5498	336 321	324	456	487	549	433	26	102°	932	099	200	106P
-806	3750-24	7500-16	7122 7097	6761 6656	398 383	386	567	601	665	535	26	111°	1 061	099	200	107P
-807	4375-20	8750-14	8316 8291	7904 7786	462 447	449	687	721	778	645	30	111°	1 156	117	255	108P
-808	5000-20	1 0000-12	9491 9466	9010 8878	525 510	511	783	820	887	741	30	111°	1 333	117	255	109P

REQUIREMENTS

1 MATERIAL

(See material code letters
under mechanical properties)

Steel, alloy Grade 4140 (UNS G41400) in accordance with MIL-S-5626 or AMS 6382
Steel, corrosion resistant Type A286 (UNS S66286) in accordance with AMS 5731 or AMS 5734
Titanium, alloy 6Al-4V (UNS R56400) in accordance with MIL-T-9047, 6Al-4V, condition A
or AMS 4967

2 PROTECTIVE COATING

Steel, alloy, shall be cadmium plated in accordance with QQ-P-416, Type II, Class 3
Steel, corrosion resistant, material code letter "S" shall be cleaned, descaled and
passivated in accordance with ASTM A380 when internal non-lock thread is specified by
part number
Steel, corrosion resistant, material code letter "S" shall be silver plated in accordance
with AMS 2411, .0002 thick when internal locking thread is specified by part number
Titanium, alloy, shall have an anodic coating

3 SURFACE ROUGHNESS

Unless otherwise specified, machined surfaces shall be 125 microinches in accordance
with ANSI B46.1 except for serrated collar

4 THREADS

The external thread has a special pitch diameter and minor diameter which installs
into MIL-S-8879 Class 3B Tapped Hole Threads shall be in accordance with procurement
specification

5 HEAT TREATMENT

Inserts shall be heat treated to develop the mechanical properties specified herein

6 MECHANICAL PROPERTIES

All of the above insert sizes in either short, medium, or long lengths are capable
of developing 220 KSI load rating based on the tensile stress area of the applicable
bolt Resistance to pullout of the insert from the parent material is a function of
shear engagement area of the external thread of the insert as defined in the procurement
specification Material code letters with pertinent length dash numbers are listed
below

Material Code
Letter

Material

Hardness

M	Steel, 4140 alloy	33 HRC Min
S	Steel, A286 cres	248 HB Min
T	Titanium, 6Al-4V alloy	39 HRC Max

("T" code only available as non-locking insert)

7 FILLETS

Filletts shall be .030 radius maximum.

8 EDGES

Edges broken .003-.015 unless otherwise specified

9 TOLERANCES

Linear dimensions ± .005, angular dimensions ± 2°

10 PART NUMBER

The MS part number consists of the MS number, plus the material code, plus the dash
number

Add "L" as suffix for internal thread lock Example

MS51498 T 805 Insert, Titanium alloy, non-locking

* MS51498 M 505 L Insert, alloy steel, internal thread lock

* The same condition can exist for all of the above materials except "T" code

NOTES

1 DIMENSIONS Dimensions in inches, to be met after plating

2 In the event of a conflict between the text of this standard and the references cited herein, the text of this
standard shall take precedence

3 Referenced Government (or non-government) documents of the issue listed in that issue of the Department of Defense
Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this standard to the extent
specified herein

P A	AR	INTERNATIONAL INTEREST	TITLE	MILITARY STANDARD
Other Cust	AS		INSERT, SCREW THREAD- LOCKED IN, RING LOCKED, SERRATED. HIGH STRENGTH, OVERSIZE REPLACER	
	99			MS51498
PROCUREMENT SPECIFICATION MIL-I-45910			SUPERSEDES:	PAGE 2 OF 2