

USER SYMBOLS
ARMY - FI, MI
NAVY - AV
USAF - 11

REVIEWER SYMBOLS:
ARMY - AV
NAVY - AS
USAF - 11

"Revision/loop information is current as of the date of this document. For future coordination of changes to this document, direct coordination should be based on the information in the current document."

"A military standard is mandatory for use by all Departments & Agencies of the Department of Defense. Selection for all new engineering and design applications and for replacing use shall be made from this document."

CONFIGURATION OF NUT OPTIONAL WITHIN THE LIMITATIONS IMPOSED BY DIMENSIONS AND REQUIREMENTS SPECIFIED HEREIN												FED SUP CLASS 5310																																																	
THREAD SIZE DASH NO	T (a) THREAD	B MAX	D MIN	F MIN	H MAX	L MIN SPACING AVAILABLE	M MIN	P (e) MAX	V MIN	AXIAL STRENGTH LBS MIN	WEIGHT (MAX) NUT ELEMENTS LBS 100	CHANNEL LBS INCH																																																	
450°F 800°F																																																													
L-03	-08 1640-32UNJC-3B	416	168	343	250	625	062	270	184	035	1 720	19	0071																																																
L3	-3 1900-32UNJF-3B	416	194	343	250	625	062	270	210	035	2 460	20	0071																																																
L4	-4 2500-28UNJF-3B	516	254	406	281	750	062	330	270	045	4 580	40	0084																																																
L5	-5 3125-24UNJF-3B	609	317	469	328	875	062	393	333	045	7 390	64	01-5																																																
L6	-6 3750-24UNJF-3B	726	379	567	344	1 000	062	455	395	055	11 450	1 08	0136																																																
<p>(a) THREADS BEFORE LUBRICATION PER MIL-S-8879 THREADS IN ACCORDANCE WITH MIL-S-7742 ARE ACCEPTABLE UNTIL 31 DECEMBER 1969</p> <p>(b) H MAX APPLIES TO NUT ELEMENT AND CHANNEL MIN H NOT SPECIFIED LIMITED ONLY BY STRENGTH REQUIREMENTS OF SPECIFICATION</p> <p>(c) FLOAT OF NUT ELEMENT PORTION OF ASSEMBLY SHALL NOT BE LESS THAN .030 NOR MORE THAN .040 LONGITUUDINALLY AND NOT LESS THAN .010 NOR MORE THAN .030 LATERALLY FROM CENTERED POSITION NUT ELEMENT SHALL BE CAPABLE OF ENGAGEMENT WITH A BOLT IN THE MAXIMUM MISALIGNMENT POSITION MAXIMUM AXIAL FLOAT .020 INCH FOR MS21065-08 AND MS21065-3 .030 FOR LARGER SIZES</p> <p>(d) THE ASSEMBLY SHALL PROVIDE A BEVELLED SURFACE FOR THE NUT ELEMENT WITHIN THE HOUSING THE CENTERLINE OF THE CHANNEL SHALL NOT DEVIATE FROM A STRAIGHT LINE BY MORE THAN .015 IN ANY 12 INCHES THE NUT ELEMENT AND BASE PORTION OF THE ASSEMBLY SHALL FORM ONE INTEGRAL UNIT</p> <p>(e) HOLE IN CHANNEL MUST PROVIDE FOR FULL FLOAT OF NUT ELEMENT BUT NEED NOT BE CIRCULAR</p>												<table border="1"> <thead> <tr> <th>L NUT ELEMENT SPACING</th> <th>NUT ELEMENT SPACING DASH NO</th> <th>MAX NO OF NUT ELEMENTS</th> </tr> </thead> <tbody> <tr><td>625</td><td>-5</td><td>115</td></tr> <tr><td>750</td><td>-6</td><td>96</td></tr> <tr><td>875</td><td>-7</td><td>82</td></tr> <tr><td>1 000</td><td>-8</td><td>72</td></tr> <tr><td>1 125</td><td>-9</td><td>64</td></tr> <tr><td>1 250</td><td>-10</td><td>57</td></tr> <tr><td>1 375</td><td>-11</td><td>52</td></tr> <tr><td>1 500</td><td>-12</td><td>48</td></tr> <tr><td>1 625</td><td>-13</td><td>44</td></tr> <tr><td>1 750</td><td>-14</td><td>41</td></tr> <tr><td>1 875</td><td>-15</td><td>38</td></tr> <tr><td>2 000</td><td>-16</td><td>36</td></tr> <tr><td>2 250</td><td>-18</td><td>32</td></tr> <tr><td>2 500</td><td>-20</td><td>28</td></tr> <tr><td>3 000</td><td>-24</td><td>24</td></tr> </tbody> </table>		L NUT ELEMENT SPACING	NUT ELEMENT SPACING DASH NO	MAX NO OF NUT ELEMENTS	625	-5	115	750	-6	96	875	-7	82	1 000	-8	72	1 125	-9	64	1 250	-10	57	1 375	-11	52	1 500	-12	48	1 625	-13	44	1 750	-14	41	1 875	-15	38	2 000	-16	36	2 250	-18	32	2 500	-20	28	3 000	-24	24
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MATERIAL		NUT ELEMENT - CORROSION AND HEAT RESISTANT STEEL, (A286) AMS5575, AMS5735 OR AMS5737 CHANNEL - CORROSION RESISTANT STEEL																																																											
HARDNESS		NUT ELEMENTS SHALL HAVE A MAXIMUM HARDNESS OF ROCKWELL C 49																																																											
PLATING		800°F NUT ELEMENTS - SILVER PLATED IN ACCORDANCE WITH AMS2410 PLATE THICKNESS MEASURED ON ANY EXTERNAL SURFACE OF THE NUT ELEMENT SHALL NOT BE LESS THAN 0.0002 INCHES THREADS SHALL SHOW COMPLETE COVERAGE BUT THICKNESS REQUIREMENT ON THREAD IS WAIVED CHANNEL - PLAIN (PASSIVATED)																																																											
LUBRICANT		450°F NUT ELEMENTS - DRY FILM LUBRICANT, ON NUT ELEMENT ONLY, APPROVED IN ACCORDANCE WITH MIL-N-25027 FOR USAF APPLICATIONS. NUTS TREATED WITH DRY FILM LUBRICANTS SHALL NOT BE USED IN INTERNAL FUEL SYSTEMS APPLICATIONS. NO SILVER PLATE																																																											
MAGNETIC PERMEABILITY		SHALL BE LESS THAN 2.0 (AIR = 1.0) FOR A FIELD STRENGTH H = 200 OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR PER MIL-I-17214 OR EQUIVALENT																																																											
PERFORMANCE		SEE PROCUREMENT SPECIFICATION, EXCEPT 450°F DRY FILM LUBRICATED NUT ELEMENTS LIMITED TO FIVE REUSE CYCLES																																																											
SERVICES SHALL STOCK IN 72 INCH LENGTHS ONLY																																																													
FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF NOTIFICATIONS FOR BID																																																													
(E) DENOTES CHANGES																																																													
P A NAVY - AS Other Cust USAF - 11 ARMY - AV		TITLE NUT SELF-LOCKING, CHANNEL, FLOATING LOW HEIGHT, CRES 125KS1 Ftu, 450°F & 800°F																																																											
PROCUREMENT SPECIFICATION MIL-N-25027		SUPERSEDES SEE SHEET 2																																																											
MILITARY STANDARD MS21065										SHEET 1 OF 2																																																			

APPROVED 26 MAR 64
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JUN 71
15 MARCH 1978

USER SYMBOLS
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*Revision/issue information is current as of the date of this document for future coordination of changes to this document draft circulation should be based on the information in the current 000159

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FED. INT. CLASS
5500

DESIGN AND USAGE LIMITATIONS THESE NUTS ARE DESIGNED TO DEVELOP THE TENSILE STRENGTH OF BOLTS AND SCREWS WITH ULTIMATE STRESS (F_{tu}) OF 125 KSI BASED ON THE CROSS SECTIONAL AREA AT THE BASIC ROOT DIAMETER OF THE THREAD. THESE NUTS ARE DESIGNED TO BE USED ON 3A EXTERNAL THREADS. THESE NUTS SHALL BE USED IN ACCORDANCE WITH THE LIMITATIONS OF MS33588. ONLY NUTS FOR WHICH THERE ARE QUALIFIED PRODUCTS LISTED ON QPL25027 SHALL BE USED.

CODE FIRST DASH NUMBER, DESIGNATES THREAD SIZE
SECOND DASH NUMBER DESIGNATES NUT ELEMENT SPACING IN EIGHTHS OF AN INCH
THIRD DASH NUMBER INDICATES NUMBER OF NUT ELEMENTS WHEN LESS THAN STOCK LENGTH (APPROX 72 INCHES) IS DESIRED
LETTER "L" BEFORE FIRST DASH NUMBER DESIGNATES DRY FILM LUBRICATED NUT ELEMENTS

EXAMPLE OF PART NUMBERS

MS21065-3-6 = GANG CHANNEL ASSEMBLY CONSISTING OF NINETY-SIX, 1900-32 SILVER PLATED NUT ELEMENTS, SPACED AT .750 INCH, 800°F
MS21065L4-7-10 = GANG CHANNEL ASSEMBLY CONSISTING OF TEN, .2500-28 DRY FILM LUBRICATED NUT ELEMENTS, SPACED AT .875 INCH, 450°F

SURFACE TEXTURE IN ACCORDANCE WITH ASA B46.1 - 1962 (ANSI) UNLESS OTHERWISE SPECIFIED THE SURFACE TEXTURE SHALL NOT EXCEED 125 MICRO INCHES

BREAK SHARP CORNERS & REMOVE ALL BURRS

DIMENSIONS IN INCHES
DIMENSIONS TO BE MET PRIOR TO LUBRICATION

INTERCHANGEABILITY TABLE

CANCELED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS 1034C - *	MS21065 - 08 - *
NAS 1035C - *	MS21065 - 3 - *
NAS 1036C - *	MS21065 - 4 - *
NAS 1037C - *	MS21065 - 5 - *
NAS 1038C - *	MS21065 - 6 - *
MS21088 L08 - *	MS21065 L08 - *
MS21088 L3 - *	MS21065 L3 - *
MS21088 L4 - *	MS21065 L4 - *
MS21088 L5 - *	MS21065 L5 - *
MS21088 L6 - *	MS21065 L6 - *

* NUT ELEMENT SPACING DASH NUMBER IS IDENTICAL FOR BOTH CANCELED AND CORRESPONDING SUBSTITUTIVE PART NUMBERS

APPROVED 26 MAR 64
REVISED(A) 25 MAY 64 (B) 12 FEB 65 (C) 4 NOV 1966 (D) FOR CHANGES SEE SHEETS 1 & 2

PA NAVY - AS Other Cus: LSAF - 11 ARMY - AV	TITLE NUT, SELF-LOCKING, CHANNEL, FLOATING LOW WEIGHT, CRES, 125KSI F _{tu} , 450°F & 800°F	MILITARY STANDARD MS21065
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES SEE SHEET 2	SHEET 2