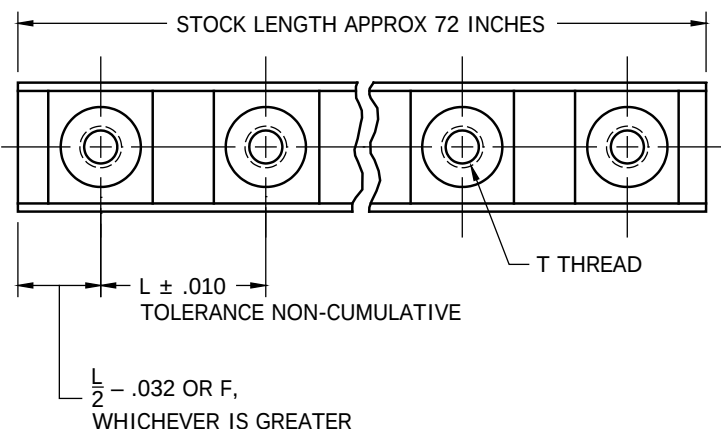
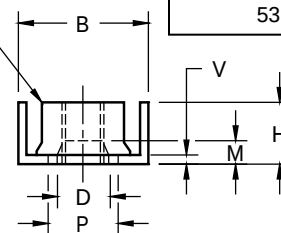




SHAPE OF
LOCKING
PORTION
OPTIONAL



FED. SUPPLY CLASS

5310

CONFIGURATION OF NUT OPTIONAL WITHIN
THE LIMITATIONS IMPOSED BY DIMENSIONS
AND REQUIREMENTS AS SPECIFIED HEREIN.

TABLE I – DIMENSIONS

THREAD SIZE DASH NO	T THREAD /1/	B MAX	D MIN	F MIN	H MAX /2/	L MIN SPACING AVAILABLE	M MIN	P /5/		V MAX	AXIAL STRENGTH LBF MIN	WEIGHT (MAX)	
								MAX	MIN			NUT ELEMENTS LBS/100	CHANNEL LBS/INCH
450 °F	800 °F												
L08	-08	.1640-32 UNJC-3B	.416	.168	.343	.250	.062	.270	.184	.035	1,720	.19	.0071
L3	-3	.1900-32 UNJF-3B	.416	.194	.343	.250	.062	.270	.210	.035	2,460	.20	.0071
L4	-4	.2500-28 UNJF-3B	.516	.254	.406	.281	.062	.330	.270	.045	4,580	.40	.0084
L5	-5	.3125-24 UNJF-3B	.609	.317	.469	.328	.062	.393	.333	.045	7,390	.64	.0146
L6	-6	.3750-24 UNJF-3B	.726	.379	.562	.344	.062	.455	.395	.055	11,450	1.06	.0186

MATERIAL:

NUT ELEMENT – A286 CRES (UNS S66286) PER AMS5525, AMS5735, AMS5732 OR AMS5737.
CHANNEL – CRES.

HEAT TREATMENT:

NUT ELEMENTS SHALL HAVE A MAXIMUM HARDNESS OF 49 HRC.

FINISH:

800 °F NUT AND CHANNEL

NUT ELEMENTS – SILVER PLATED IN ACCORDANCE WITH AMS2410. PLATE THICKNESS
MEASURED ON ANY EXTERNAL SURFACE OF THE NUT ELEMENT SHALL NOT BE LESS THAN
.0002 INCHES. THREADS SHALL SHOW COMPLETE COVERAGE BUT THICKNESS REQUIREMENT
ON THREAD IS WAIVED.

CHANNEL – (WHEN THERE IS “NO CODE”) PLAIN PASSIVATED PER AMS2700. (WHEN CODED
“B”): PASSIVATION IN ACCORDANCE WITH AMS2700 METHOD 2– NO POST TREATMENT.
(WHEN CODED “M”): PASSIVATION IN ACCORDANCE WITH AMS2700 METHOD 1, TYPE 8;
CLASS 1 – NO POST TREATMENT.

②

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES MS21065, REVISION E. PART NUMBERS REMAIN MS21065.

THIRD ANGLE PROJECTION	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 2
PROCUREMENT SPECIFICATION NASM25027	TITLE NUT, SELF-LOCKING, CHANNEL, FLOATING, LOW HEIGHT, CRES, 125 KSI Ft_u, 450 °F & 800 °F	CLASSIFICATION PART STANDARD MS21065



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②

450 °F NUT AND CHANNEL – (WHEN THERE IS “NO CODE”) – PLAIN PASSIVATED PER AMS2700.
(WHEN CODED “B”): PASSIVATION IN ACCORDANCE WITH AMS2700 METHOD 2 – NO
POST TREATMENT.
(WHEN CODED “M”): PASSIVATION IN ACCORDANCE WITH AMS2700 METHOD 1, TYPE 8;
CLASS 1 – NO POST TREATMENT.

LUBRICATION:

450 °F NUT ELEMENTS – DRY FILM LUBRICANT, ON NUT ELEMENT ONLY, APPROVED IN ACCORDANCE
WITH ~~MIL-DTL-25027~~ NASM25027.

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” IN PLACE OF FIRST DASH DESIGNATES DRY FILM LUBRICATED NUT ELEMENTS.
LETTER “B” OR “M” IN PLACE OF SECOND DASH DESIGNATES THE TYPE OF PASSIVATION ON THE
CHANNEL AND ON THE 450 °F NUT IF USED.

②

EXAMPLES OF PART NUMBERS:

MS21065-3-6 = GANG CHANNEL ASSEMBLY CONSISTING OF NINETY-SIX .1900-32 SILVER PLATED
NUT ELEMENTS AND PASSIVATED CHANNEL, SPACED AT .750, 800 °F.
MS21065L4-7-10 = GANG CHANNEL ASSEMBLY CONSISTING OF TEN .2500-28 PASSIVATED NUTS AND
CHANNEL, DRY FILM LUBRICATED NUT ELEMENTS, SPACED AT .875, 450 °F.
MS21065-4M10 = GANG CHANNEL ASSEMBLY CONSISTING OF FIFTY-SEVEN .2500-28 SILVER
PLATED NUT ELEMENTS, SPACED AT 1.250, 800 °F. CHANNEL PASSIVATED IN
ACCORDANCE WITH AMS2700, METHOD 1, TYPE 8; CLASS 1 – NO POST
TREATMENT.
MS21065L3B5-20 = GANG CHANNEL ASSEMBLY CONSISTING OF TWENTY .1900-32 DRY FILM
LUBRICATED NUT ELEMENTS, SPACED AT .625, 450 °F. CHANNEL AND NUT BOTH
PASSIVATED IN ACCORDANCE WITH AMS2700 METHOD 2 – NO POST TREATMENT.

②

NOTES:

- /1/ THREADS BEFORE LUBRICATION PER AS8879. THREADS IN ACCORDANCE WITH MIL-S-7742 ARE
ACCEPTABLE UNTIL 31 DECEMBER 1969.
- /2/ “H” MAX APPLIES TO NUT ELEMENT AND CHANNEL. MIN “H” NOT SPECIFIED, LIMITED ONLY BY
STRENGTH REQUIREMENTS OF SPECIFICATION.
- (3) FLOAT OF NUT ELEMENT PORTION OF ASSEMBLY SHALL NOT BE LESS THAN .030 NOR MORE THAN .040
LONGITUDINALLY 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 FOR MS21065-08 AND MS21065-3. .030 FOR
LARGER SIZES.
- (4) THE ASSEMBLY SHALL PROVIDE A BEARING 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.
- /5/ HOLE IN CHANNEL MUST PROVIDE FOR FULL FLOAT OF NUT ELEMENT BUT NEED NOT BE CIRCULAR.
- (6) MAGNETIC PERMEABILITY SHALL BE LESS THAN 2.0 (AIR = 1.0) FOR A FIELD STRENGTH H = 200
OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR PER ASTM A342/A342M, TEST METHOD 3.

REVISION

2

NASM21065

SHEET 2



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