

Customer Design Standards

MATpoint[®]/ M point (GM STANDARD GMW3362)

START EVERY DESIGN BY FINDING "Lnom" IF "Lnom" IS NOT GIVEN ON THE CUSTOMER DRAWING, USE EITHER THE MAXIMUM LENGTH (Mmax) OR MINIMUM FULL THREAD LENGTH (Lf) FROM THE CUSTOMER DRAWING TO CALCULATE IT USING ONE OF THE FOLLOWING EQUATIONS $(M_{\rm T})^2$ CRITICAL DESIGN INFORMATION

SECONDARY: PREFERRED: Lnom = Mmax-Z4-TLnom = Lf+U+T

T = 0.15T = 0.25FOR Lnom SHORTER THAN OR EQUAL TO 50mm FOR Lnom GREATER THAN 50mm

NOT CHANGE _nom_MUST_BE_ON_EVERY_PART_DRAWING ANY DIMENSION GIVEN WITHOUT CONSULTING MATHREAD

INSPECTION INFORMATION:



- 5 LNOM ON ROLLED PART IS MEASURED TO THE POINT ON THE LEAD THREAD WHERE IT APPROXIMATELY REACHES A HEIGHT OF "W" (~0.2×PITCH) WHEN MEASURED FROM THE ROOT OF THE THREAD. (see sketch above)
- MATPOINT SHALL HÂVE A MINIMUM OF 1.0 COMPLETE TURN OF RADIUSED THREAD.

 THREAD MUST BE FULLY FORMED, WITH NO UNDER FILL (FLATS, FISSURES) AT PEAK OF THREAD.

 WHEN VIEWED IN THE DESIGNATED INSPECTION POSITION, THREE COMPLETE
- RADIUSED THREAD PROFILES MUST BE VISIBLE.

 APPROPRIATE "GO" GAGE MUST COMPLETELY PASS OVER MATPOINT SECTION OF THREAD WITH MINIMAL DRAG BEFORE PLATING. GAGE MUST HAVE MINOR DIAMETER VERIFIED TO ANSI/ASME B1.16-1984 BEFORE USE.

 "Z3" MUST BE MEASURED TO TANGENT POINT OF 'R', USING MAThread APPROVED RADIUS CHART FROM POINT "W" TO TANGENT

THIS DOCUMENT AND THE II WRITTEN AUTHORIZATION C	- R(REF)																			
FORMATI F MATHRE	FINE THREAD											COARSE THREAD								
THIS DOCUMENT AND THE IMPORMATION CONTAINED HEREIN IS THE PROPERTY OF MATHREAD INC. ANY USE, DISCLOSURE OR COPYING IS PROHIBITED EXCEPT WITH THE WAUTHORIZATION OF MATHREAD INC., MATHREAD	M20x1.5	M18x1.5	M16x1.5	M14x1.5	M12x1.5	M10x1.25	M8x1.0	DIMENSIONS ARE IN MILLIMETERS (mm)	M20x2.5	M18x2.5	M16x2.0	M14x2.0	M12x1.75	M10x1.5	M8x1.25	M6x1.0	M5x.8	M4x.7	SIZE & PITCH	1 1 2
	6.2	5.4	4.9	4.3	3.5	3.0	2.5		6.0	5.2	4.7	4.1	3.3	2.8	2.3	1.8	1.5	1.2	REF	J
	15.8	13.7	12.8	10.8	8.8	7.5	6.0		13.3	12.2	10.9	9.6	8.2	6.8	5.5	4.0	3.4	2.7	MAX	ָל
	0.30	0.30	0.30	0.30	0.30	0.25	0.20		0.50	0.50	0.40	0.40	0.35	0.30	0.25	0.20	0.16	0.14	+.01 01	///
	18.260 18.143	16.260 16.143	14 260 14 143	12.260 12.143	10.260 10.143	8.540 8.447	6.810 6.724		17 172 17 057	15 172 15 057	13.720 13.609	11 720 11 604	9.950 9.880	8.230 8.143	6 540 6 447	4.800 4.724	4.030 3.954	3.170 3.098	ÜX	ָ כ
	4.65	4.40	4.10	3.68	3.15	2.60	2.10		4 65	4 40	4.10	3.68	3.15	2.60	2.10	1.50	1.30	1.20	MIN	7
	8.80	8.50	7.20	6.55	6.00	4.85	3.90		8.80	8.50	7.10	6.43	5.65	4.65	3.90	2.85	2.50	2.40	MAX	7
HIBITED EXCER	3.15	2.75	2.00	1.75	1.50	1.25	1.00		3.12	2.75	2.00	1.75	1.50	1.25	1.00	0.75	0.60	0.50	NIN C7	75
AVED THE TIM THE	3.4	3.4	3.4	3.4	3.4	2.8	2.3		5.6	5.6	4.5	4.5	4.0	3.4	2.8	2.3	1.8	1.5	REF	-

80.01 :35A9

(SEE NOTE 1)

±T (T=0.15 FOR Lnom≤50) ±T (T=0.25 FOR Lnom>50)

Ζ4

(SEE NOTE 4) Z3 –

<u></u> Z5

(R)

THE BLANK!

NOT BE USED TO DESIGN Z5, Z3, Dx, & U MUST FINISHED PART DIMENSIONS

Š

(Lf=Lnom-T-U)

(MINIMUM FULL THREAD)

-Lf -

(Mmax=Lnom+T+Z4)

Mmax -

Date Issued: 12/01/99

Revision Level: An

Date Revised: 3/5/19

Page 10 08

¥

COVERED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 6,561,741 9,644,665 9,644,663 9,644,664

ADDITIONAL US & INTERNATIONAL PATENTS PENDING