

CRITICAL DESIGN INFORMATION
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

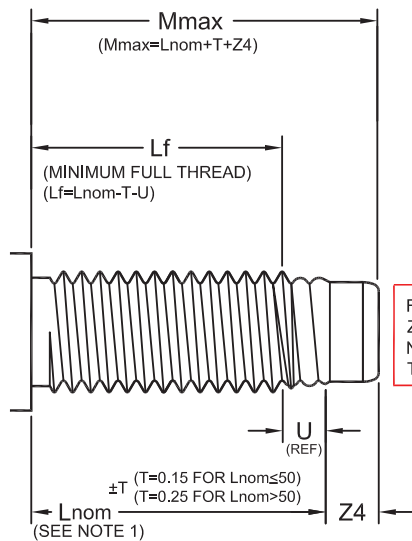
PREFERRED: $L_{nom} = M_{max} - Z_4 - T$
SECONDARY: $L_{nom} = L_f + U + T$

$T = 0.15$ FOR L_{nom} SHORTER THAN OR EQUAL TO 50mm
 $T = 0.25$ FOR L_{nom} GREATER THAN 50mm

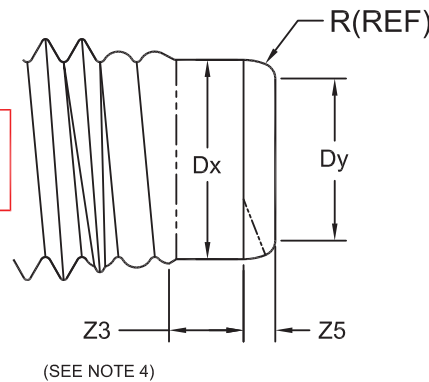
Lnom MUST BE ON EVERY PART DRAWING
DO NOT CHANGE ANY DIMENSION GIVEN WITHOUT CONSULTING MATHREAD

INSPECTION INFORMATION:

1. Lnom ON ROLLED PART IS MEASURED TO THE POINT ON THE LEAD THREAD WHERE IT FIRST REACHES A HEIGHT OF 'w' (0.2xPITCH) WHEN MEASURED FROM THE ROOT OF THE THREAD. (see sketch above)
2. MATpoint SHALL HAVE 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.
3. 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.
4. "Z3" MUST BE MEASURED TO TANGENT POINT OF 'R', USING MATHread APPROVED RADIUS CHART FROM POINT "W" TO TANGENT



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



THREAD SIZE & PITCH	R REF	Dy MAX	W +.01 -0.01	Dx	Z ₃ MIN	Z ₄ MAX	Z5 MIN	U REF
COARSE THREAD	M4x.7	1.20	2.7	0.14	3.170 3.098	1.20	2.40	1.50
	M5x.8	1.50	3.4	0.16	4.030 3.954	1.30	2.50	1.80
	M6x1.0	1.80	4.0	0.20	4.800 4.724	1.50	2.85	2.30
	M8x1.25	2.30	5.5	0.25	6.540 6.447	2.10	3.90	2.80
	M10x1.5	2.80	6.8	0.30	8.230 8.143	2.60	4.65	3.40
	M12x1.75	3.30	8.2	0.35	9.950 9.880	3.15	5.65	4.00
	M14x2.0	4.10	9.6	0.40	11.720 11.604	3.68	6.43	4.50
	M16x2.0	4.70	10.9	0.40	13.720 13.609	4.10	7.10	4.50
DIMENSIONS ARE IN MILLIMETERS (mm)								
FINE THREAD	M8x1.0	2.50	6.0	0.20	6.810 6.724	2.10	3.90	2.30
	M10x1.25	3.00	7.5	0.25	8.540 8.447	2.60	4.85	2.80
	M12x1.5	3.50	8.8	0.30	10.260 10.143	3.15	6.00	3.40
	M14x1.5	4.30	10.8	0.30	12.260 12.143	3.68	6.55	3.40
	M16x1.5	4.90	12.8	0.30	14.260 14.143	4.10	7.20	3.40