

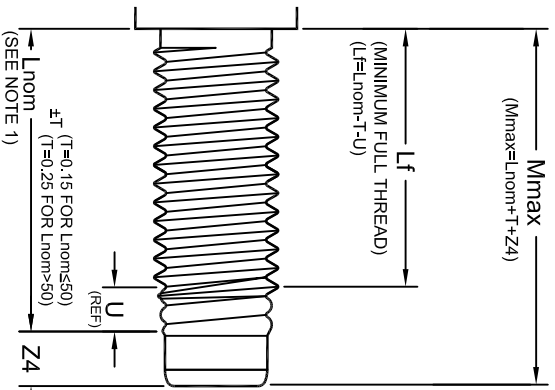
**CRITICAL DESIGN INFORMATION**  
**START EVERY DESIGN BY FINDING "Lnom"**

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

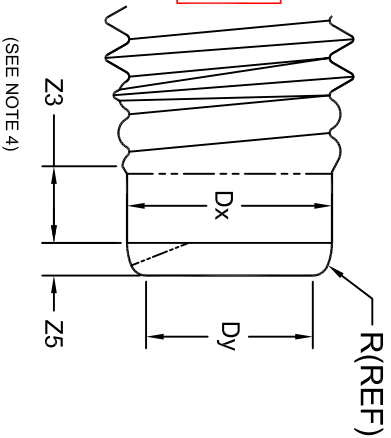
PREFERRED:  $Lnom = Mmax - Z4 - T$   
 SECONDARY:  $Lnom = Lf + U + T$

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

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

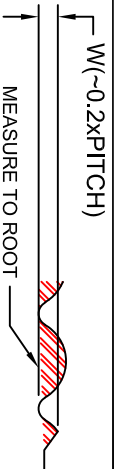


FINISHED PART DIMENSIONS Z5, Z3, Dx, & U MUST NOT BE USED TO DESIGN THE BLANK!



INSPECTION INFORMATION:

1. Lnom ON ROLLED PART IS MEASURED TO THE POINT ON THE LEAD THREAD WHERE IT APPROXIMATELY 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 RADUSED 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 RADUSED 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



FINE THREAD

COARSE THREAD

THREAD SIZE & PITCH	R REF	Dy MAX	W +01 -01	Dx	Z3 MIN MAX		Z4 MIN MAX		Z5 MIN	U REF
					Z3 MIN	Z3 MAX	Z4 MIN	Z4 MAX	Z5 MIN	
M4x.7	1.2	2.7	0.14	3.170 3.098	1.20	2.40	0.50	1.5		
M5x.8	1.5	3.4	0.16	4.030 3.954	1.30	2.50	0.60	1.8		
M6x1.0	1.8	4.0	0.20	4.800 4.724	1.50	2.85	0.75	2.3		
M8x1.25	2.3	5.5	0.25	6.540 6.447	2.10	3.90	1.00	2.8		
M10x1.5	2.8	6.8	0.30	8.230 8.143	2.60	4.65	1.25	3.4		
M12x1.75	3.3	8.2	0.35	9.950 9.880	3.15	5.65	1.50	4.0		
M14x2.0	4.1	9.6	0.40	11.720 11.604	3.68	6.43	1.75	4.5		
M16x2.0	4.7	10.9	0.40	13.720 13.609	4.10	7.10	2.00	4.5		
M18x2.5	5.2	12.2	0.50	15.172 15.057	4.40	8.50	2.75	5.6		
M20x2.5	6.0	13.3	0.50	17.172 17.057	4.65	8.80	3.12	5.6		
<b>DIMENSIONS ARE IN MILLIMETERS (mm)</b>										
M8x1.0	2.5	6.0	0.20	6.810 6.724	2.10	3.90	1.00	2.3		
M10x1.25	3.0	7.5	0.25	8.540 8.447	2.60	4.85	1.25	2.8		
M12x1.5	3.5	8.8	0.30	10.260 10.143	3.15	6.00	1.50	3.4		
M14x1.5	4.3	10.8	0.30	12.260 12.143	3.68	6.55	1.75	3.4		
M16x1.5	4.9	12.8	0.30	14.260 14.143	4.10	7.20	2.00	3.4		
M18x1.5	5.4	13.7	0.30	16.260 16.143	4.40	8.50	2.75	3.4		
M20x1.5	6.2	15.8	0.30	18.260 18.143	4.65	8.80	3.15	3.4		