

IMPORTANT NOTE: THIS DESIGN IS INTENDED TO MINIMIZE CROSS-THREADING UP TO 9 DEGREES AXIAL MISALIGNMENT. IT IS POSSIBLE (THOUGH VERY DIFFICULT) TO CROSS-THREAD THESE PARTS IF YOU NEED 100% EFFECTIVENESS, USE A STANDARD MATHREAD OR MATPOINT.

CRITICAL DESIGN INFORMATION

START EVERY DESIGN BY FINDING "L_{nom}"

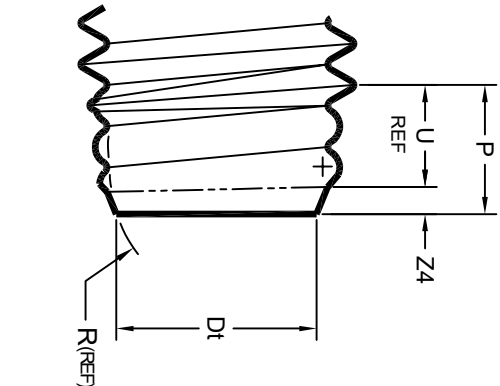
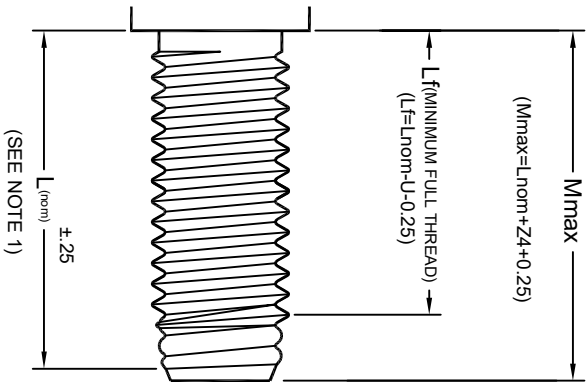
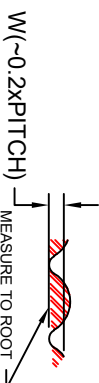
IF "L_{nom}" IS NOT GIVEN ON THE CUSTOMER DRAWING, USE EITHER THE MAXIMUM LENGTH (M_{max}) OR MINIMUM FULL THREAD LENGTH (L_f) FROM THE CUSTOMER DRAWING TO CALCULATE IT USING ONE OF THE FOLLOWING EQUATIONS

PREFERRED: $L_{nom} = M_{max} - Z_4 - 0.25$
SECONDARY: $L_{nom} = L_f + U + 0.25$

L_{nom} MUST BE ON EVERY PART DRAWING
DO NOT CHANGE ANY DIMENSION GIVEN WITHOUT CONSULTING MATHREAD

INSPECTION INFORMATION:

1. L_{nom} 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.



FINE THREAD

COARSE THREAD

THREAD SIZE & PITCH	Dt MAX	W ±.01	U REF	Z ₄ REF	P MAX
M4x.7	2.83	0.14	1.5	0.50	2.50
M5x.8	3.70	0.16	1.8	0.50	2.80
M6x1.0	4.30	0.20	2.3	0.65	3.45
M8x1.25	5.99	0.25	2.8	0.90	4.20
M10x1.5	7.64	0.30	3.4	1.00	4.90
M12x1.75	9.30	0.35	4.0	1.30	5.80
M14x2.0	10.98	0.40	4.5	1.20	6.20
M16x2.0	12.98	0.40	4.5	1.20	6.20
M18x2.5	14.00	0.50	5.6	1.50	7.60
M20x2.5	16.00	0.50	5.6	1.50	7.60
M22x2.5	18.00	0.50	5.6	1.50	7.60
M24x2.0	20.98	0.40	4.5	1.20	6.20
M28x2.0	24.98	0.40	4.5	1.20	6.20

DIMENSIONS ARE IN MILLIMETERS (mm)

M8x1.0	6.30	0.20	2.3	0.65	3.45
M10x1.25	7.99	0.25	2.8	0.90	4.20
M12x1.5	9.64	0.30	3.4	1.00	4.90
M14x1.5	11.64	0.30	3.4	1.00	4.90
M16x1.5	13.64	0.30	3.4	1.00	4.90
M18x1.5	15.64	0.30	3.4	1.00	4.90
M20x1.5	17.64	0.30	3.4	1.00	4.90
M22x1.5	19.64	0.30	3.4	1.00	4.90
M24x1.5	21.64	0.30	3.4	1.00	4.90
M28x1.5	25.64	0.30	3.4	1.00	4.90