

## **Customer Design Standards**

## MATpoint®- VERY SHORT

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 "Lnom"

EITHER THE MAXIMUM LENGTH (Mmax) OR MINIMUM FULL THREAD LENGTH (Lf) FROM THE CUSTOMER DRAWING TO CALCULATE IT USING ONE OF THE FOLLOWING EQUATIONS "Lnom" IS NOT GIVEN ON THE CUSTOMER DRAWING, USE

PREFERRED: SECONDARY:

 $\begin{array}{rcl} \mathsf{Lnom} &=& \mathsf{Mmax}{-}\mathsf{Z4}{-}.01 \\ \mathsf{Lnom} &=& \mathsf{Lf}{+}\mathsf{M}{+}.01 \end{array}$ 

E ANY DIMENSION GIVEN WITHOUT CONSUL

DO NOT CHANGE CONSULTING MATHREAD

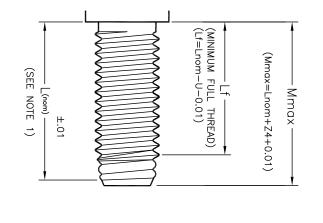
INSPECTION INFORMATION:

2

W(0.2xPITCH)

MEASURE TO ROOT

- Lhom ON ROLLED PART IS MEASURED TO THE POINT ON THE LEAD THREAD MEASURED FROM WHERE IT FIRST REACHES A HEIGHT OF 'W' (0.2xPITCH) WHEN MEASURED FROM THE ROOT OF THE THREAD. (see sketch above)
  MATH-read SHALL HAVE A MINIMUM OF 1.5 COMPLETE TURNS 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, FOUR COMPLETE RADIUSED THREAD PROFILES MUST BE VISIBLE.
  APPROPRIATE "GO CAGE MUST COMPLETELY PASS OVER MATH-read SECTION OF THREAD WITH MINIMAL DRAG BEFORE PLATING. GAGE MUST HAVE MINOR DIAMETER VERIFIED TO MINIMAL DRAG BEFORE PLATING. GAGE MUST HAVE MINOR DIAMETER VERIFIED TO
- Ņ ANSI/ASME B1.2-1983 BEFORE USE.



Date Issued: 3/1/09

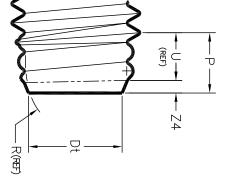
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Page 11 09

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PAGE: 11.09



FINE THREAD									COARSE THREAD							
5/8-18	9/16-18	1/2-20	7/16-20	3/8-24	5/16-24	1/4-28	DIME	5/8-11	9/16-12	1/2-13	7/16-14	3/8-16	5/16-18	1/4-20	THREAD SIZE & PITCH	
.533	.470	.420	.358	.298	.235	.185	DIMENSIONS	.470	.450	.376	.321	.273	.220	.170	MAX	
.0111	.0111	.0100	.0100	.0083	.0083	.0071	ARE IN	.0182	.0167	.0154	.0143	.0125	.0111	.0100	±.0004	
.188	.188	.163	.163	.150	.150	.133	ENGLISH	.300	.275	.245	.225	.205	.188	.163	MAX D	
.030	.030	.025	.025	.023	.023	.020	(inch)	.053	.050	.043	.040	.035	.030	.025	Z <sub>4</sub> REF	
.125	.125	.113	.113	.094	.094	.080		.205	.188	.173	.161	.141	.125	.113	REF	