CALIPER & MICROMETER ACCURACY STANDARDS

Conversion:
mm to ins. = mm / 25.4 (50mm = 1.9685 ins.) 1µm (0,001mm) ins. ~ 0.00004 ins. (30µm = 0.00118 ins.)

CALIPERS A more comprehensive version of this table (and much more) can be found in **DIN 862** For further information see also ISO 3611			
Measurement length (mm)	Accuracy limits G[1]) in µm (0,001mm)		
	Scale values:	Vernier and Dial	Digital
	0,1 and 0,05	0,02	0,01
50	50	20	20
100			
200		30	30
300			
400	60		
500	70		
600	80		
700	90	40	40
800	100		
900	110		
1000	120		
1200	140	50	---
1400	160		
1600	180	60	
1800	200		
2000	220		
G[1]) values should be increased by 20 µm when measuring inside and depth measurements. The parallelism of measuring faces shall be preserved after locking.			

DIN 862 & DIN 863 are the standards used by most manufacturers as the referenced requirement and testing standard. As both tables are only a small portion of the actual standards, it is recommended that they be read by anyone wishing all information. They are available in German and English.

MICROMETERS A more comprehensive version of this table (and much more) can be found in **DIN 863** For further information see also ISO 2012, ISO 3599 & ISO 6908				
Measurement length (mm)	Accuracy limits µm	Parallelism of the measuring surfaces when a measurement force of 10N is applied		Deformation (2 µm
		(1	µm	
0 - 25	4	6	2	2
25 – 50	4	6	2	2
50 – 75	5	10	3	3
75 - 100	5	10	3	3
100 - 125	6	-	3	4
125 – 150	6	-	3	5
150 – 175	7	-	4	6
175 – 200	7	-	4	6
200 - 225	8	-	4	7
225 – 250	8	-	4	8
250 – 275	9	-	5	8
275 – 300	9	-	5	9
300 - 325	10	-	5	10
325 – 350	10	-	5	10
350 – 375	11	-	6	11
375 – 400	11	-	6	12
400 - 425	12	-	6	12
425 – 450	12	-	6	13
450 – 475	13	-	7	14
475 - 500	13	-	7	15
(1 Number of interference rings or lines (2 Acceptable stability deformation from a measurement force of 10N				