

## CALIPER & MICROMETER ACCURACY STANDARDS

### Conversion:

mm to ins. = mm / 25.4 (50mm = 1.9685 ins.) 1 $\mu$ m (0,001mm) ins.  $\sim$  0.00004 ins. (30 $\mu$ m = 0.00118 ins.)

<b>CALIPERS</b>			
A more comprehensive version of this table (and much more) can be found in <b>DIN 862</b> For further information see also ISO 3611			
Measurement length (mm)	Accuracy limits G <sup>1</sup> ) in $\mu$ m (0,001mm)		
	Scale values:		Digital
	0,1 and 0,05	Vernier and Dial 0,02	0,01
50	50	20	20
100			
200			
300			
400	60	30	30
500			
600			
700			
800	100	40	40
900			
1000			
1200			
1400	140	50	---
1600			
1800			
2000			
G <sup>1</sup> ) values should be increased by 20 $\mu$ m 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.

<b>MICROMETERS</b>				
A more comprehensive version of this table (and much more) can be found in <b>DIN 863</b> For further information see also ISO 2012, ISO 3599 & ISO 6908				
Measurement length (mm)	Accuracy limits $\mu$ m	Parallelism of the measuring surfaces when a measurement force of 10N is applied		Deformation (2 $\mu$ m)
		(1	$\mu$ m	
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				