Versuch - 6 Elastizitätsmodul

Aluminium: $l = 100, 99.9, 100, 99.9, 99.95$ cm
$b = 9.85, 9.86, 9.85, 9.86, 9.85$ $\bar{b} = 9.854$
$h = 5.90, 5.91, 5.91, 5.89, 5.90$

Messing: $l = 100$ cm
$b = 9.89, 9.89, 9.88, 9.89, 9.88$
$h = 5.875, 5.885, 5.89, 5.891, 5.87$

Stahl: $l = 100$ cm
$b = 9.93, 9.90, 9.90, 9.905, 9.91$
$h = 5.89, 5.88, 5.88, 5.88, 5.87$

$L: 40.5$ cm

Aluminium: Gewicht	biegehöhe / mm	Messreihe 2	Messreihe 3	Messreihe 4
100y	0.11	0.12	0.10	0.12
100y + 100σ	0.24	0.23	0.23	0.23
100(y+σ+p)	0.36	0.35	0.34	0.35
200p + 200y	0.47	0.47	0.48	0.49
100p + 200(p+y)	0.60	0.59	0.59	0.61
100(p+σ) + 200(p+y)	0.71	0.71	0.71	0.73
100(y+σ+p)	0.83	0.83	0.83	0.85
100(y,σ) + 200(σ+y)	0.95	0.95	0.95	0.93
+ p	1.07	1.07	1.07	1.05
+ 50(y,σ)	1.19	1.19	1.18	1.17

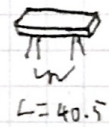
Material: Al:

Gewicht	biegehöhe	abnehmen.
200y σ	0.47	0.47
+ 100p	0.59	0.59
+ 100y	0.71	0.71
+ 100σ	0.82	0.82
+ 50y	0.89	0.88
+ 50σ	0.95	0.94
+ 50p	1.01	

Messreihe 2:

	biegehöhe	abnehmen
+ 200p	0.72	0.72
	0.0.85	0.84
	0.96	0.96
	1.08	1.08
	1.14	1.14
	1.20	1.20
	1.26	

Ausrichtung



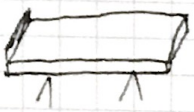
200y σ	0.17	0.17
+ 100p	0.21	0.22
+ 100y	0.26	0.27
+ 100σ	0.31	0.31
+ 50y	0.33	0.33
+ 50σ	0.35	0.35
+ 50p	0.37	

+ 200p	0.26	0.26
	0.31	0.31
	0.35	0.35
	0.40	0.40
	0.42	0.42
	0.44	0.44
	0.46	

Messing:

	0.34	0.34
	0.43	0.42
	0.51	0.51
	0.59	0.59
	0.63	0.64
	0.69	0.68
	0.72	

	0.51	0.50
	0.59	0.59
	0.68	0.68
	0.76	0.76
	0.81	0.81
	0.85	0.85
	0.89	



Stahl:

	0.15	0.15
	0.19	0.19
	0.23	0.23
	0.27	0.27
	0.29	0.28
	0.30	0.30
	0.32	

	0.23	0.23
	0.27	0.26
	0.30	0.31
	0.34	0.34
	0.37	0.36
	0.39	0.38
	0.40	

Versuch 6 fort.

Länge Aluminium:

Gewicht	s/mm	ab/mm
200(y0)	1.15	1.14
+100p	1.44	1.44
+100y	1.74	1.74
+100ö	2.02	2.03
+50y	2.18	2.17
+50p	2.33	2.32
+50ö	2.49	-

+200p		
	1.75	1.73
	2.03	2.03
	2.31	2.33
	2.63	2.63
	2.80	2.77
	2.94	2.92
	3.07	

L = 55.0 cm

Gewichte:

50p = 49.96g
100p = 99.96g
200p = 199,71g

50ö = 50.02g
100ö = 100,00g
200ö = 199.89g

50y = 49.98
100y = 100.01g
200y = 199.56g

Unsicherheiten: Bandmaß: ± 0.05 cm
Mikrometerschraube: ± 0.03 mm
Digital: ± 0.005 mm
Waage: ± 0.05 g

Gewicht	s/mm	ab/mm
200y0	0.32	0.32
+100p	0.40	0.40
+100y	0.48	0.47
+100ö	0.56	0.55
+50y	0.60	0.59
+50p	0.64	0.63
+50ö	0.68	

+200p		
	0.48	0.47
	0.56	0.55
	0.64	0.63
	0.71	0.71
	0.76	0.76
	0.80	0.79
	0.83	

L = 35.5cm

24.09.18