NGB
total weighing solutions

N.G. Brown & Associates Pty Ltd

ABN 97 004 819 738

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

p 03 9753 4499 | f 03 9753 4299 | e office@ngbrown.com.au | a 31 Jellico Drive, Scoresby, Vic. 3179

Mass calibration uncertainties

NGB Weighing   Our competitors
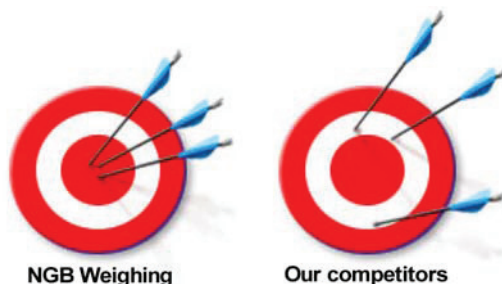
When it comes to calibration uncertainty we have never been more certain about ours!

If you own or calibrate a micro or analytical balance be absolutely sure you are using the correct calibration weights and your weights are calibrated with a measurement uncertainty suitable for your balance. Calibration laboratories issue calibration certificates detailing the actual measured values along with a measurement uncertainty. The simple explanation of measurement uncertainty is how uncertain the laboratory is about the measured value. For example: A calibration of a 2 g weight may be reported as 2.000,015 g with an uncertainty of +/-0.015 mg. This means the actual value could be as high as 2.000,030g and as low as 2.000,000 g which is not much use for checking the calibration of a 0.000,001 g micro balance. The same principle applies to all weights used to check the calibration of balances and scales. NATA publishes the best calibration uncertainties achievable by accredited laboratories and these are available from the NATA web site www.NATA.com.au. Our NATA accreditation allows us to provide the most precise calibration uncertainties on weights to allow accurate calibration of all balances and scales. In fact we can now calibrate weights with an uncertainty as low as +/-1 µg. No other competitor can provide that level of certainty. Be aware of the calibration uncertainty when paying for weight calibration and don't pay for a poor calibration when you need accuracy.

Weight value	OIML E1 Class	OIML E2 Class	OIML F1/F2 NMI Class 1	M1 Class NMI Class 2	M2 Class NMI Class 3
1-2 mg	1.2 µg	3.0 µg	6 µg	20 µg	
5 mg	1.2 µg	3.0 µg	6 µg	20 µg	
10 mg	1.2 µg	3.0 µg	8 µg	20 µg	
20 mg	1.2 µg	3.0 µg	8 µg	50 µg	
50 mg	1.5 µg	4.0 µg	10 µg	50 µg	
100 mg	1.7 µg	5 µg	10 µg	70 µg	
200 mg	2.0 µg	5 µg	10 µg	0.10 mg	
500 mg	3.0 µg	6 µg	12 µg	0.16 mg	
1 g	3.0 µg	6 µg	15 µg	0.20 mg	
2 g	4.0 µg	8 µg	15 µg	0.30 mg	
5 g	8 µg	12 µg	20 µg	0.45 mg	
10 g	10 µg	15 µg	25 µg	0.6 mg	
20 g	12 µg	20 µg	35 µg	0.8 mg	
50 g	20 µg	30 µg	0.06 mg	1.0 mg	
100 g	35 µg	0.05 mg	0.10 mg	1.7 mg	0.005 g
200 g	50 µg	0.07 mg	0.20 mg	3.2 mg	0.010 g
500 g	0.10 mg	0.25 mg	0.8 mg	5 mg	0.025 g
1 kg	0.16 mg	0.5 mg	1.6 mg	7 mg	0.05 g
2 kg	1.0 mg	2.0 mg	3.0 mg	10 mg	0.10 g
5 kg	1.5 mg	3.0 mg	8 mg	15 mg	0.20 g
10 kg	3.0 mg	5 mg	16 mg	30 mg	0.27 g
20 kg	14 mg	20 mg	30 mg	60 mg	0.37 g
25 kg					0.37 g
50 - 100 kg					2.7 g
100 - 250 kg					4.0 g
250 - 500 kg					8 g
500 - 1000 kg					10 g