



## Calibration Service

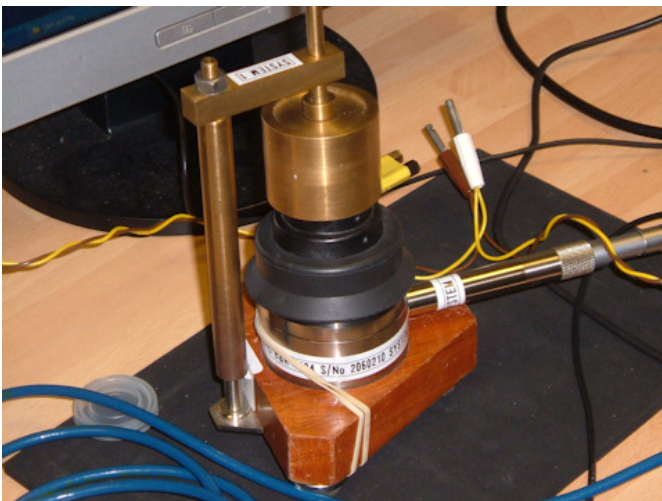
### Accreditation or Traceable

Accredited calibration requirements are driven by the new Legal Metrology Rules that govern measurements that are going to be used in legal proceedings or as a method of cost calculation in some contracts. In some respects they replace the old "weights and measures inspections" that ensured that petrol pumps really did dispense the number of gallons indicated.



In the United Kingdom the body responsible for ensuring the accuracy of these measurements is UKAS; they assess the quality systems of calibration laboratories and verify the uncertainties of the results they obtain. If all is in order they then accredit the laboratory to undertake Accredited ("UKAS") Calibrations.

Often Government Regulations specify that UKAS Accredited measurements must be used and in other cases Enforcement Agencies request Accredited calibrations to ensure that their results will stand up to scrutiny in a court of law. Many private consultancy companies also choose to go down the Accredited route as their results are often likely to be used in legal proceedings.



Traceable calibrations are those carried out independently of the UKAS audit system. Naturally as the degree of supervision and associated paperwork is less they are not as expensive. Measurements can be traceable to almost any reference source although most site the National Physical Laboratory.

The important point is how much uncertainty is added to the NPL value by the chain to the eventual client. A laboratory that is directly traceable to the NPL could translate an uncertainty from them of 0.7dB into an uncertainty of around 0.1dB to their client; however if there were several laboratories in the chain to the client the uncertainty obtained could be significantly higher.

Each calibration laboratory will have its own procedures and control systems so the client must make its own assessment of the suitability of the accuracy and completeness of work for the applications they are working on.