

## Why calibrate?

It is a fundamental requirement of an accredited quality system that any measurements critical to the outcome of a process are made using equipment of a known capability. This usually requires that measuring equipment is assessed against recognised specifications by comparison with reference standards that are themselves traceable to National Standards. The system of traceability ensures that all measurements are conducted on equal terms wherever they take place.

Charges for the above services may be discussed with the Laboratory Manager via 08456 058 058. Ask for the Trading Standards Metrology Section.

The service can also be accessed via [www.derbyshire.gov.uk/tradingstandards](http://www.derbyshire.gov.uk/tradingstandards)



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## Derbyshire County Council Trading Standards Service

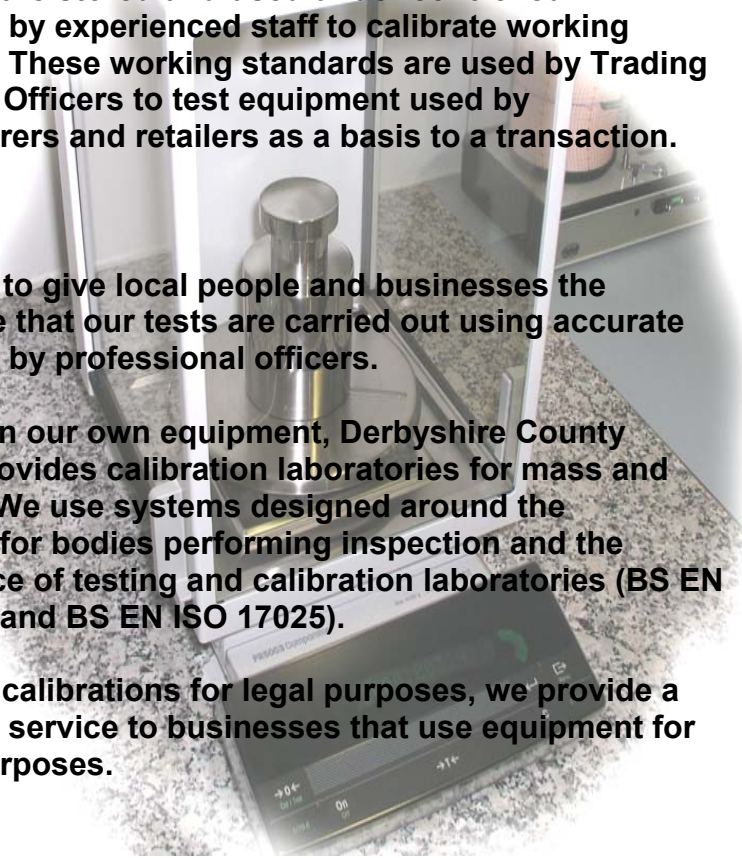
# CALIBRATION SERVICES

The primary function of Derbyshire County Council's Trading Standards Service Metrology Laboratory is to maintain local standards of mass, capacity and length as required by the Weights and Measures Act 1985. These standards are stored and used under controlled conditions by experienced staff to calibrate working standards. These working standards are used by Trading Standards Officers to test equipment used by manufacturers and retailers as a basis to a transaction.

Our aim is to give local people and businesses the confidence that our tests are carried out using accurate equipment by professional officers.

To maintain our own equipment, Derbyshire County Council provides calibration laboratories for mass and capacity. We use systems designed around the standards for bodies performing inspection and the competence of testing and calibration laboratories (BS EN ISO 17020 and BS EN ISO 17025).

As well as calibrations for legal purposes, we provide a calibration service to businesses that use equipment for general purposes.



The range of calibration services offered by Derbyshire County Council Trading Standards are traceable to national standards, for legal purposes through the National Weights and Measures laboratory, whilst commercial calibrations are traceable through suitably accredited laboratories.

## The Scope of the laboratory covers :

- Mass
- Length
- Capacity

The Laboratory can calibrate weights falling within the following ranges:

- Class F2 – 20 kg to 1 mg
- Class M1 – 25 kg to 1 mg
- Class M2 – 25 kg to 1 mg

The uncertainty of measurement for the above classes of calibration are normally no greater than 1/5 the limit of error for the nominal value of the weight being calibrated. Weights between 25kg and 50kg can be calibrated to M1 and M2 limits of error, the uncertainty of measurement being determined on each occasion.

Poises between 60kg/590 Newtons and 1g/0.00001 Newtons can be tested and a measured value quoted.

### Length

The laboratory is able to test and report on flexible tape measures up to Directive 73/362/EEC as amended class II, up to 30 m nominal length, and rigid measures up to 1m in length (excluding engineers precision rules).

Measurements can be determined to  $\pm 0.5$  mm.

### Capacity

The laboratory can test and report on glass delivery and contents measures such as flasks and measuring cylinders, by either volumetric or gravimetric means in accordance with BS6696/ISO4787. Additionally, some metal contents measures up to 20 litres can be calibrated.

### General equipment

Weighing instruments, tyre pressure gauges and storage tank dipsticks for certain liquids can be tested and reported on.

### Equipment hire

Some of the laboratory's working standards and test equipment is available for short term hire. Up to 2000 kg of test weights, made up of 20kg iron weights can be made available. The Trading Standards Service's bulk fuel reference meter for testing meters dispensing gas oil or kerosene can be hired on a daily basis and is supplied with an experienced operative. Some capacity measures may also be hired on a daily basis. Equipment hired can be covered by a certificate of traceability.

