Certificates of Calibration

Each day industrial companies carry out a vast range of physical measurements, the accuracy of which must satisfy their business requirements. It is well known that accurate measurements are needed, not only to achieve an acceptable level of quality and efficiency of manufacturing, but also to allow the testing of products to satisfy both the demands of direct customers and the broader requirements for international trade (such as ISO). To be consistent with measurements made elsewhere, such measurements should also be traceable[1] to International or National measurement standards.

The technical infrastructure in each country that underpins the measurement requirements of industry and ensures that measurements are consistent and traceable, is termed the National Measurement System. In the UK for example, this system comprises the hierarchy of calibration and testing laboratories, many of which are accredited by the United Kingdom Accreditation Service (UKAS). These laboratories carry out measurements and calibrations for industry traceable to National measurement standards held in the UK's National Metrology Institute, the National Physical Laboratory (NPL). In addition to providing measurement standards for use by other laboratories, the NPL also offers traceable measurements for industry when the highest accuracy is required.

To ensure world-wide consistency of measurements, all the National Metrology Institutes (NMI's) in the world work in harmony. This is carried out under the auspices of the International diplomatic treaty, the Treaty of the Metre, signed in 1875 whereby Nations agreed, amongst other things, to the setting up of the International Committee of Weights and Measures (CIPM). Besides establishing the worldwide definitions of physical units, the CIPM organises an ongoing series of key comparisons between NMI'S to support the mutual recognition of measurement standards and calibration certificates. These key comparisons also involve regional metrology organisations, such as EUROMET (EU +EFTA +European Commission), APMP (Asia Pacific Metrology Programme) and SIM (Canada, USA, Mexico plus most Latin, South American and Caribbean states), which act as regional focuses for the growing number of NMI's throughout the world. **This means that UKAS and NPL calibrations offered by Pyser-SGI will satisfy the requirements of NIST, DIN and all other NMI's across the world.**

[1] BS5233 : 1986 defines traceability as 'The property of a result of a measurement whereby it can be related to appropriate standards, generally international or national standards, through an unbroken chain of comparisons'.

Pyser-SGI Limited offers calibration of its scales and grids from the most appropriate laboratory to suit the customer requirements – the choice of laboratory is normally dependent on the nature of the calibration and the accuracy required.

a) Calibration by NPL

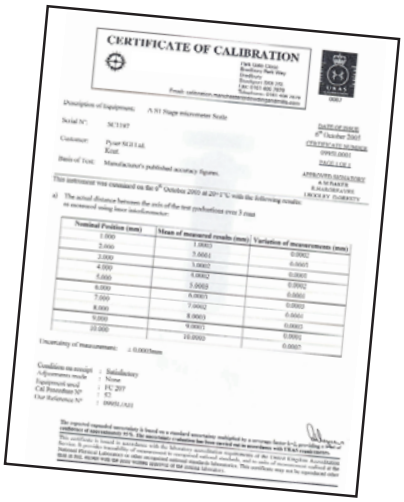
The National Physical Laboratory carries out measurements at selected points on the scales and grids and issues a certificate of calibration.


NATIONAL PHYSICAL LABORATORY

Certificate of Calibration

b) Calibration by UKAS accredited laboratory

A UKAS accredited laboratory carries out measurements at selected points on the scales and grids and issues a calibration certificate.


CERTIFICATE OF CALIBRATION

c) Measurement by Graticules

For applications that do not require the accuracy provided by calibration carried out by NPL or a UKAS accredited laboratory, Graticules can provide a Certificate of Comparison. The scale or grid is compared with NPL calibrated in-house standards and a statement is provided on the accuracy of the item with respect to these standards. This certification is not traceable.


GRATICULES DIVISION of PYSER-SGI LIMITED

CERTIFICATE OF COMPARISON

When ordering any of the stage micrometers, grids or scales with a calibration certificate please add a suffix to the order code:

i.e.:- 05A01040/NPL for PS1 with NPL certificate
05A01040/NAM for PS1 with UKAS (NAMAS) certificate
05A01040/GRA for PS1 with Graticules certificate.

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