

CLINOMETERS

Precision in Angular Measurement, Checking and Setting out

Clinometers are valuable for simple, speedy and accurate measurement, checking and setting-out of angles.

Workshop Clinometers

Workshop Clinometers are robustly constructed instruments, with scales designed for clear, simple reading. The digital clinometer is ideal for angular settings, checking and inspection of machine tools and fixtures. Mechanical clinometers are also available on request.

Microptic Clinometers

Microptic Clinometers have been designed for simplicity and very high accuracy. The Clinometer uses precisely divided circular glass scale, mounted on a spindle that rotates in a high quality bearing. At the end of the spindle is a sensitive bubble vial, which acts as a horizontal reference.

Two models are available - TB80 and TB100 - both reading over a range 0°-360°.

Dual purpose

In addition to functioning as clinometers, both Microptic Clinometers can be used either vertically or horizontally as circular measuring tables. For this purpose the bubble unit is replaced by an optional worktable, which allows a maximum symmetrical load of 2.25 kg (5 lb). A reflector can also be fitted for use in conjunction with an autocollimator.

TB80 Microptic Clinometer (Code 142/44)

- Direct reading to 1/2 second of arc.
- Two-sided circle reading system designed to minimise scale centring errors.
- A coincidence-reading bubble unit.
- Hardened and lapped steel locating faces on the base, one adjacent side, and the back.

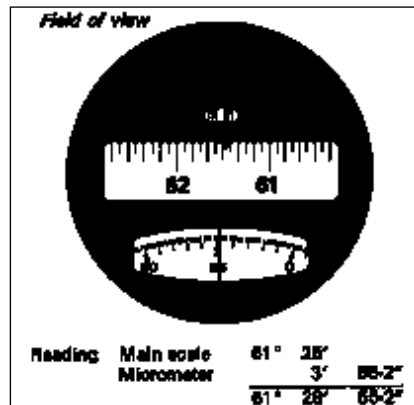
To determine the inclination of the clinometer, the bubble unit is levelled and the scales read through the reading eyepiece. Fine setting of the bubble is achieved by a slow-motion drive to the totally enclosed glass circle.

The bubble unit incorporates a prismatic coincidence reader that presents both ends of the bubble as adjacent images in a split field of view. Precise levelling is indicated when the two ends are coincident.



TB80 and autocollimator used to check polygons

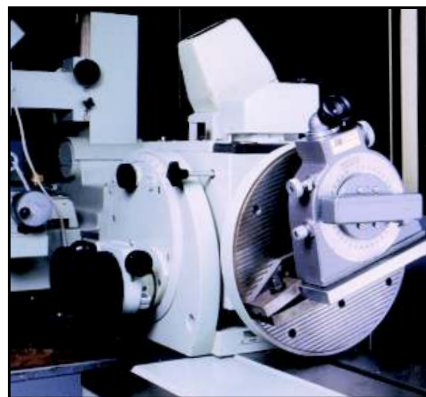
Readings from the graduated circle and the micrometer scale are given in two separate apertures seen through the eyepiece.



TB80 eyepiece field of view

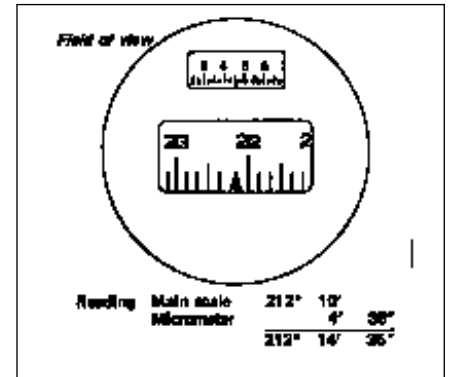
TB100 Microptic Clinometers (Code 142/43)

- Direct reading to 10 seconds of arc.
- Estimation to within 2 seconds of arc.
- Hardened ground steel base.



TB100 checking dividing head

The field of view visible in the eyepiece contains two scales. The lower one is the main scale, in degrees with 10 minute sub-divisions; above it is the scale of the optical micrometer, in minutes with 10 sub-divisions.



TB100 eyepiece field of view

Digital Clinometer (Code 137/2161)

This universal clinometer is ideal wherever a high accuracy is required over a large measurement range. The system offers the following features:

- Large measuring range (+/-45 degrees) accurate to within 2 minutes of arc
- resolution of 0.01 degree (in certain conditions 4 seconds of arc or 0.02mm/m)
- variety of measurement units (push button selectable) to give readings in degrees, minutes of arc, mm/meter, .001"/10 inches.



Automatic setting to absolute or relative zero measuring modes is selectable by push button. All four sides of the hard-anodized aluminium frame are precision machined to make possible angle measurement in any quadrant. Battery power, sturdy construction and compact size make the device suitable for use virtually anywhere. A built-in calibration program ensures that calibration is always current and correct.

Serving a global market

Taylor Hobson is world renowned as a manufacturer of precision measuring instruments used for inspection in research and production facilities. Our equipment performs at nanometric levels of resolution and accuracy.

To complement our precision manufacturing capability we also offer a host of metrology support services to provide our customers with complete solutions to their measuring needs and total confidence in their results.

Contracted Services from Taylor Hobson

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 measurement of your production parts by skilled technicians using industry leading instruments in accord with ISO standards
- Metrology training**
 practical, hands-on training courses for roundness and surface finish conducted by experienced metrologists
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