CHROM-SCALE instruction manual

General instructions

- Both magnifying lenses can be adjusted for personal visual resolution by turning the focus ring.
- For connection, removal and smooth sliding of the lens holder, press the red stud on the back of the lens holder. This is important, as otherwise the rule can be pulled along with it!
- The auxiliary lights are turned on by turning the handle to the left.
- The whole lamp can be turned in its holder for varying or optimising the light.

Requirements for accurate measurement

- even placement surface
- direct contact between test material and rule (scale)
- the object to be tested and the rule should be sufficiently stabilised and acclimatised to the environment (temperature & relative humidity)
- constant thermal environment (ideal = 20°C)
  Watch out for:
  – radiant heat from the lighting
  – body temperature of the person carrying out the test
- take into account the measuring accuracy of the device, individual measurement variance and the coefficients of contraction and expansion of different materials
- perpendicular look through the magnifying lenses:



offset view = reading error



perpendicular view = no reading error

Measuring with the Chrom Scale

Preparation

Lay the object to be measured on an even surface. Lay Chrom-Scale on the object to be measured and align roughly to the measuring section. Adjust both magnifying lenses for personal visual resolution by turning the focus ring.

Measuring

a) Position the left magnifying lens approximately above the zero reference mark and the right magnifying lens approximately above the end of the measuring section.
b) Check and align the position of the scale to the measuring section.
c) Position the left magnifying lens precisely over the zero reference mark of the scale (press the red button to slide the lens holder), look perpendicularly through the lens and, by sliding the rule, align the zero reference mark of the scale exactly with the beginning of the measuring section.
d) Check whether the position of the scale at the end of the measurement section (right magnifying lens) is still correct. If not, hold the rule tight on the left and on the right gently lift and align. Then check the position of the zero reference mark again ⇨ c).
d) The result can only be read when the rule is perfectly aligned. In addition position the right magnifying lens precisely perpendicularly above the end of the measuring section (verify using centring ring. Press the red button to slide the lens holder and hold the rule tight by means of light pressure on the aluminium rail). Look perpendicularly through the magnifying lens and read and note the scale value.
e) Check again whether the rule is still perfectly aligned. If not, repeat the measurement!