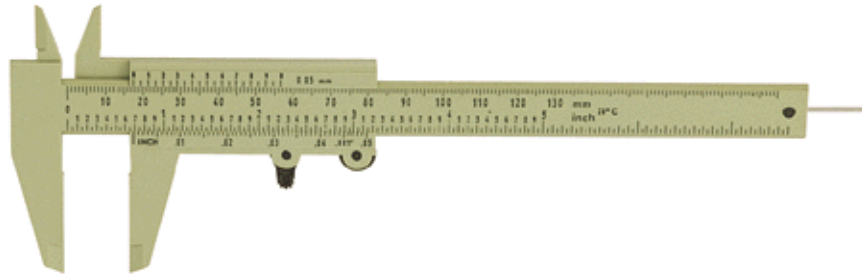


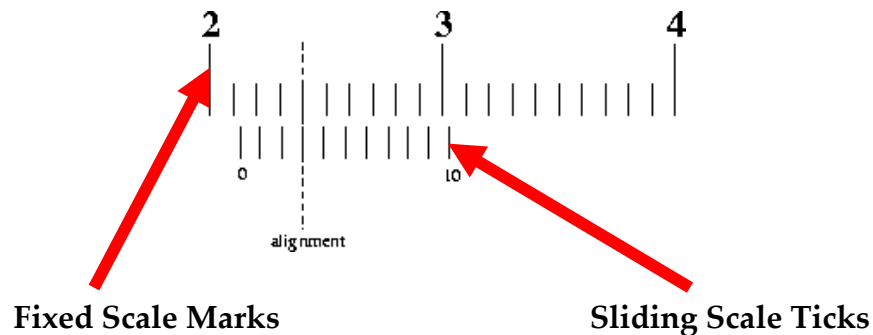
Vernier Caliper – Metric System



How To Read The Vernier Caliper:

The Vernier Caliper is an extremely precise measuring instrument; its error is 1/20 mm (or 0.05 mm).

- *Ignore the top edge, which is inches. Use the bottom edge, which is metric.*
- Close the jaws *lightly* around the object whose width or size is to be measured.
- Notice there is a *fixed* scale and a *sliding* scale.
- The fixed scale's numbers are *cm*. The *marks* between the fixed scale's numbers are *mm*.
- The sliding scale's *ticks* are labeled 0 to 10. (Check to verify this! Not every model is identical!)
The sliding scale's *left-most-tick* reads the fixed scale's *cm & mm* width value.



The left-most-tick of the sliding scale is between the 2.1 cm & 2.2 cm marks of the fixed scale.

- Next, to find the 1/10 mm, notice that *ten* ticks of the sliding scale are as wide as *nine* marks of the fixed scale. Only one sliding scale tick will align with one fixed scale mark over it. Therefore, the *number* of the aligned tick (0 to 10) is the *number* of the 1/10 mm.
- At the illustration, the 3rd sliding scale tick aligns with the fixed scale mark over it:

$$\text{Width} = (2.1 + 3/10) \text{ cm} \pm 0.005 \text{ cm} = 2.13 \pm 0.005 \text{ cm}$$

- If the width is a *whole* number of cm or mm (e.g., 2 cm), include the zero decimal places showing the measurement's precision and error (i.e., not 2 cm but 2.00 ± 0.005 cm).

See animation at: http://vernier-caliper.com/images/products/using_the_caliper_new_en.gif