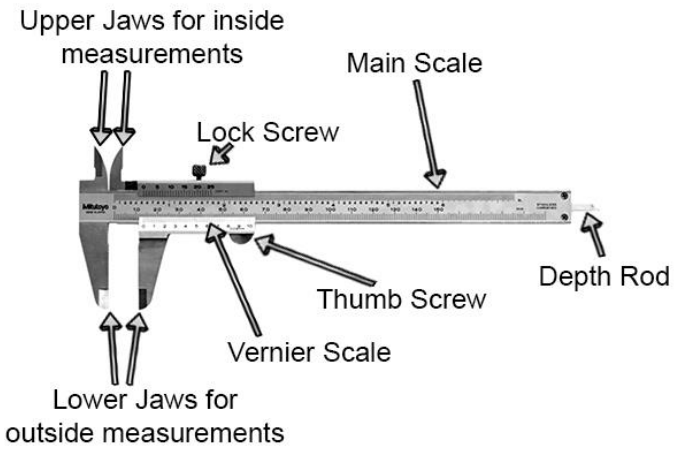
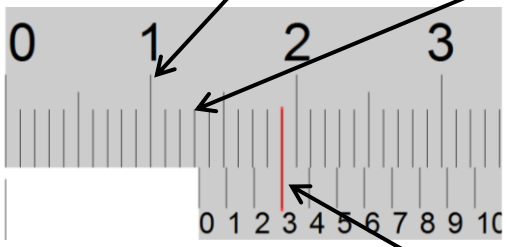
How to use Vernier Calipers



1. Unlock the lock screw and press the thumb screw down. Open the jaws.
2. Close the jaws around the object you want to measure or, for inside measurements open them until the fill the gap you wish to measure, or insert the depth rod into the hole you wish to measure.
3. Tighten the lock screw so that the jaws do not move.
4. Now read the scale.

a. Read off the centimetre mark to the left of the vernier scale zero. In this case 1 cm.

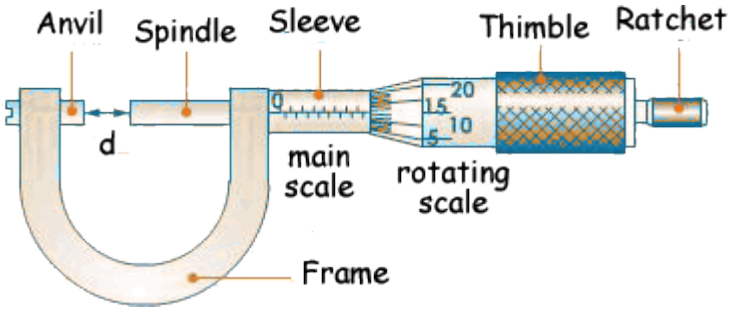
b. Read off the millimetre mark to the left of the vernier scale zero. In this case 3 mm.



d. Add the readings together to get your measurement.
1cm + 3 mm + 0.3 mm = 13.3 mm
or 1.33 cm

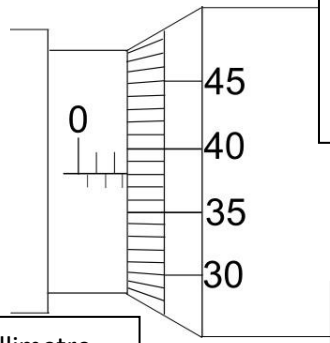
c. Look along the vernier scale to find the point where the line matches up with the line on the bar scale. This tells you the number of tenths of a millimetre, in this case 0.3 mm.

How to use a Micrometer Screw Gauge



1. Open the micrometer by turning the thimble or ratchet.
2. Place the object to be measured between the spindle and anvil.
3. Close the spindle by turning the ratchet, not the thimble. The ratchet prevents excess pressure on the object being measured, so you don't squash it and get a false reading.
4. Now read the scale.

a. Read off the millimetre mark to the left of the thimble.



c. Read off the hundredths of a millimetre where the scale on the thimble meets the centre of the main scale. In this case 0.38 mm.

b. Is there a half millimetre mark before the millimetre mark to the left of the thimble? If there is add 0.5 mm to your mm reading. So in this case 2.5 mm

d. Add the readings together, so the thickness measured here is:
2.5 + 0.38 = 2.88 mm.

https://www.scribd.com/document/586483755/Vernier-Calipers