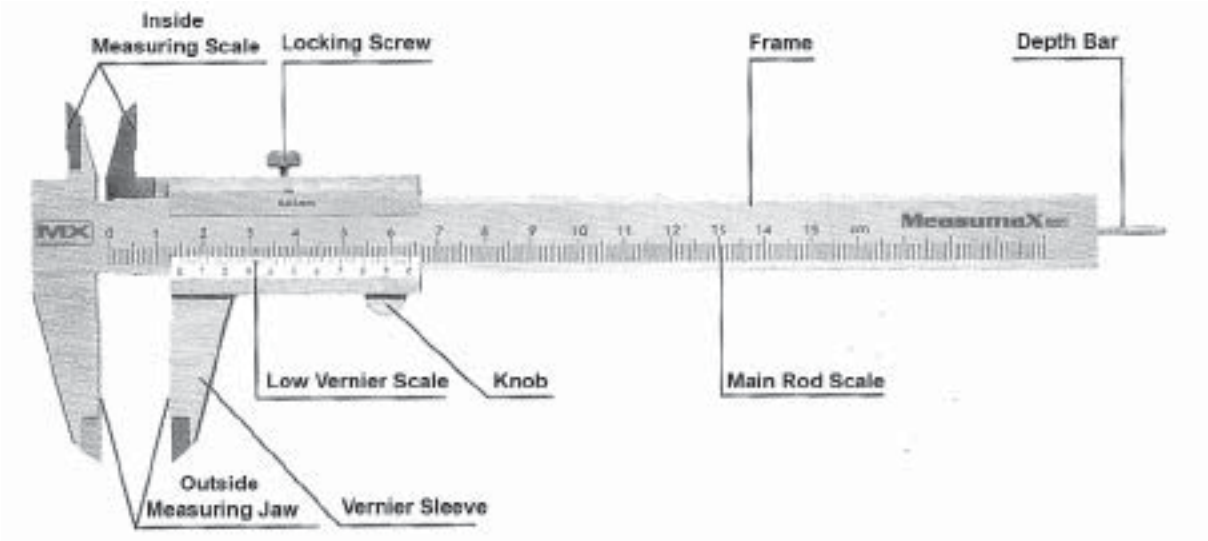
Technical Data Sheet

How to read a vernier caliper

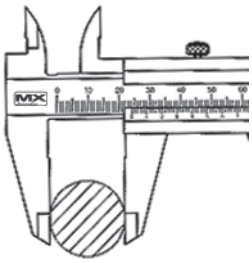
Vernier calipers are a little harder to read than a digital caliper but has the same configuation with jaws you can use to measeure the outside of an item with another set of jaws that are used to measure the inside of an object.



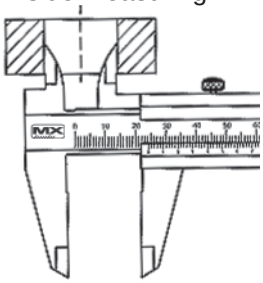
1. 4 Way Measuring Vernier Caliper

A Measumax 4 way measuring vernier caliper has as the heading states, 4 ways you can use the vernier caliper to measure a item.

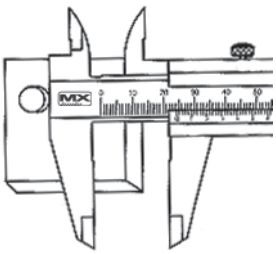
Outside Measuring



Inside Measuring



Step Measuring



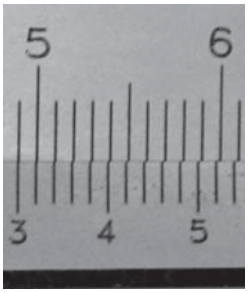
Depth Measuring

2. Reading the Scale

1. Befor taking a measurement, first clean the measuring surfaces of both vernier caliper and the object, and then decide which method you are going to use from the diagams above. Loosen the locking screw and move the slider so that the jaws touch the item to be measured and are square to the axis of the item. With a small amount of presure to keep the jaws together, tighten the locking screw and remove the vernier caliper so you can read it.

2. To be able to read the scale we need to understand what each scale represents. There are two scales. You need to think of the scales this way. The upper scale is the dimension to the left of the decimal point. Each line represents 1 mm. So on the diagram to the right the 5 is 50mm and the 6 is 60mm. Between the 5 and the 6 are 10 lines each one is 1mm (total10mm)

The lower scale gives us the dimesion to the right of the decimal point. It has 5 graduation between each number. So between 3 and 4 on the bottom scale there are 5 divisions. Each graduation is 0.02mm



3. Example

In the example below the first reading is taken with the line on the top scale that lines up with the “0” on the bottom scale. In the example below it is just past the 34. So the first reading is 34mm. The second reading we take by finding the line on the bottom scale that lines up with a line on the top scale. We need to remember that each line on the bottom equals .02mm so we count each line as 2. The line that lines up with a line on the top scale is the 3rd line between 2 and 3 on the bottom scale which is if we count each line as 2 is 26 to the right of the decimal point 0.26mm

Summary

We have on the top scale	34.00mm
On the bottom scale we have	0.26mm
Our measurement is	34.26mm