



METAL VERNIER CALIPER

VCB001

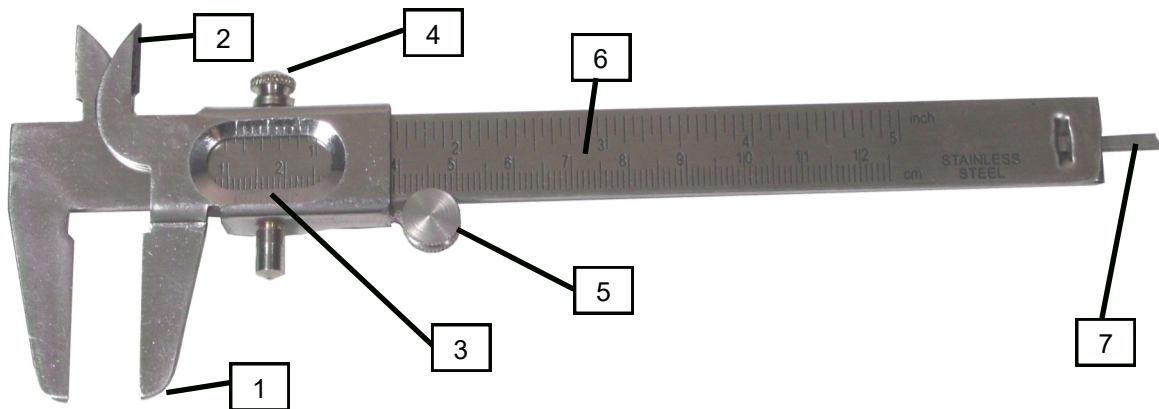


Figure 1

DESCRIPTION

A caliper is a scientific instrument that is used to determine the internal or external diameter of cylinders, other small objects, and the length, width, depth or thickness of certain materials. The metal caliper is made of stainless steel. The maximum measurement of the metal caliper is 11.6 cm or 4 9/16th inches.

IDENTIFICATION OF COMPONENTS

1. External jaws
2. Internal jaws
3. Vernier scale
4. Locking screw
5. Advancing roller
6. English/Metric Scale
7. Depth measuring gauge

PRE-LAB ASSEMBLY

Be sure to use a soft cloth to wipe off the lubricant before using it for the first time. Carefully place the now dirty soft cloth in the garbage can for safety purposes. Wash your hands before using the metal caliper.

You can select either the **Metric** or **English** system for your measurements. Since scientists use only the metric system, all the activities developed here use the metric system.

Observe the bottom left part of the metal caliper which has two long sections and has two parallel jaws. This part is used to measure the external diameters of objects. (1)

Hold the caliper in the closed horizontal position. Observe the top left part of the metal caliper where you have two metal parts that come to a point and have two parallel jaws. This section will be used to measure the internal section of a cylinder, a beaker, or a flask. (2)

Open the caliper a few centimeters and observe that a metal rod extends from the back of the scale. This rod will be used to measure the depth of a cylinder, a beaker, or a flask. (3)

Your metal caliper has a part that allows you to lock your measurement in place. (4)

On the lower right side of the moveable section of the caliper, observe the metal circle. Turn this part to move the parts of your caliper for internal or external measurements. (5)

Turn the metal round nut clockwise to lock the moveable part. This will allow you to take very accurate measurements. Rotate the metal round nut counterclockwise to loosen the movable section after you have completed your measurement. Do not remove the round nut from the caliper.

