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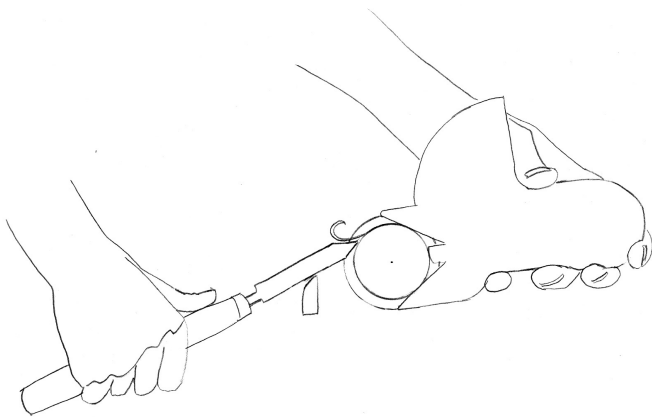
Galbert Caliper Use Guide

This Caliper gives a constant, accurate reading of the diameter of a work piece as it is cut. It is a “turners tape measure”, the operator simply stops cutting when the desired diameter is reached.

The need to set multiple tools and use them in the correct locations is replaced by one tool that needs no setting and is always ready to give accurate readings of the diameter required.

This guide is meant to encourage safe accurate use of the Galbert Caliper and is not a substitute for professional instruction. Woodturning is inherently dangerous and should be practiced with all safety procedures and equipment in place.

The Galbert Caliper in use



Range:

The Caliper can measure diameters from 2 3/4” to 1/2”. The Caliper can be used while the cutting tool is engaged from 2 1/2” to 3/4”.

To measure a diameter ranging from $\frac{1}{2}$ " to $\frac{3}{4}$ ", the cutting tool should first be removed and then the Caliper can be used to take the measurement.

Do not attempt to cut a diameter smaller than $\frac{3}{4}$ " while the Caliper is in position to take a reading. Readings on larger diameter pieces can be made with a diminished range. For instance, when measuring grooves cut into a 3" round, the caliper can take readings from $2\frac{1}{2}$ " to $1\frac{7}{8}$ ".

Before attempting to measure diameters on pieces larger than $2\frac{3}{4}$ ", check to make sure that the tool will measure the smallest diameter intended without the larger diameter contacting the clear cover plate. Contact of the work piece with the clear coverplate may cause damage to the tool and unsafe operation.

Metric Scale:

To replace the imperial scale with a metric version, remove the screws from the standoff at the lower end of the scale and the calibration screw in the middle of the scale and exchange the scales. Replace the screws and standoff and calibrate the scale according to the calibration instructions.

Measuring:

Do not attempt to measure a work piece mounted in the running lathe until it has been turned completely round. Check the Galbert Caliper for loose parts and to ensure that all of the moving parts are functioning properly before each use.

To measure the diameter of a round work piece, place the upper jaw against the work piece and press until the stylus and the lower jaw make contact. The dial will move to the point on the scale that corresponds to the diameter. To measure a spinning work piece, cut a small groove with a parting tool and position Caliper on the rear of the piece, opposite the tool rest, so that the stylus rides in the groove and press lightly until both jaws make contact in the groove and read the dial.

Calibration:

To calibrate the Caliper for accurate readings requires a round piece of a known size. Often a portion of the headstock or tailstock will serve well, giving the operator a quick reference to check the calibration of the tool before starting the lathe.

Once the actual size of the round is established, place the Caliper in position to read the diameter. If the reading is not correct, loosen the calibration locking screw that holds the scale in place and move the scale until the dial corresponds to the correct reading. Tighten the locking screw.

Cutting:

The Caliper may be used with a parting tool to take a direct reading of the work piece while it is cut to size. Narrower parting tools ($\frac{1}{8}$ ") will work best, as long as the groove cut will allow the Caliper to move freely.

Do not attempt to use the Caliper in a groove that is equal to or narrower than the thickness of the jaw

Vibration:

Vibration is a common problem in lathe work. There are many causes and remedies. Among the factors are the stability of the lathe, the size of the work piece and most importantly the sharpness of the tool used.

Once these factors are addressed, the Caliper can be used without increasing vibration. The key to reducing vibration when starting a new cut is to begin by taking a very light, vibration free cut, BEFORE introducing the Caliper to take a reading. The smooth surface established will help to ensure that further cutting while the Caliper is engaged will remain vibration free.