

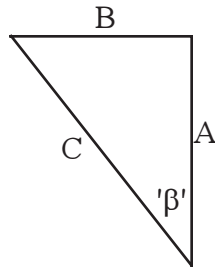
# New Accessory!

## The Poor Man's Angle Set

If you're not ready to spend lots of money or don't think you will need the precision of the steel angle blocks, and you're willing to do a little thinking, this is the set for you! Amazingly simple, the Poor Man's Angle Set takes advantage of high school trigonometry to calculate angles based upon a simple measurement that you can make using your TS-Aligner.

### Theory of Operation:

The idea is based upon the fact that when the length of the two sides of a right triangle are known, the third side (the hypotenuse) and the angles it produces are also known. For example:



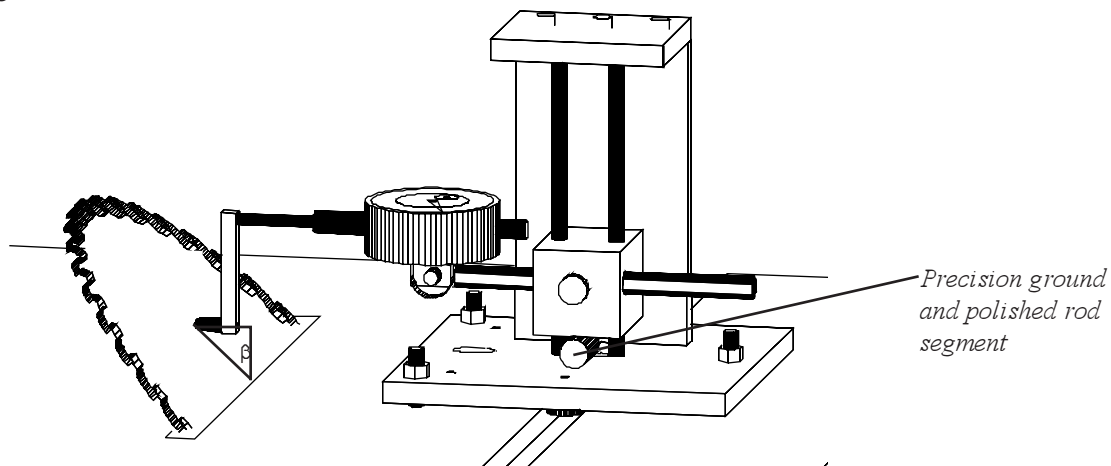
In the above triangle, if we can keep side 'A' fixed to a certain length, and we can measure side 'B' accurately, then the angle 'β' is equal to the Arc Tangent of 'B' divided by 'A'. Although it sounds pretty complicated, it is much simpler to think of in reverse. If you know what angle 'β' you want, and side 'A' is kept fixed, then you can calculate the proper length for 'B' using the following formula:

$$B = A * \text{Tangent } \beta'$$

### How this works with TS-Aligner:

The set consists of a short piece of precision ground and polished steel rod, a tangent table, and instructions. Imagine that 'β' is the blade tilt angle you want and that side 'C' (the hypotenuse) is your blade. The length of side 'A' is the vertical motion of TS-Aligner which can be fixed by using the precision ground rod segment. The length of side 'B' is measured with the dial indicator (very accurately). The tangent table that we provide will tell you to tilt the blade until the dial indicator reads the proper distance, 'B', for the angle, 'β', you want. It works the same way with the miter gauge.

The accuracy obtained using this method is equivalent to what our competition offers (good enough for general woodworking). Unlike our competition, we offer complete instructions on the additional calibration procedures necessary to achieve this accuracy. While it is possible to do the extra calibration steps by trial and error, we recommend that you purchase a 45 degree angle block to make it easier and more accurate.



# Provided Free with Every TS-Aligner!