Fibonacci Gauge Instructions

The Fibonacci Gauges are tools to help Woodworkers design and layout their woodworking projects using the Golden ratio which will help you design proportionally pleasing Woodworking projects. Fibonacci ingenious triple-point caliper design when spread apart will always reflect the Golden Ratio of 1:1.618. So how do we use this ingenious tool?

Using the 12" Fibonacci Gauge for project layout on paper.

Scaling your project:

To layout your project idea on paper, we must first scale the original measurements down in size to fit your drawing on the paper. Our measurement scale could start at ⅟₁₆", ⅛", ¼", ½" and all will be equal to one inch. Since I am using a standard 8½"x 11" sheet of paper and my largest dimension in my project is 48" which is the length of my table top. I will be using ⅛" scale, or eight ⅛" units per inch. Then divide 8 into 48" giving us Six or 6" on our drawing for example. Use this method to scale all your measurements.

Functionally vs. Proportionally:

Let's talk about Functionally vs. Proportionally of our project. Some time's the sizes of our projects are dictated by function. Like the size of the room or a defined space that our project must fit into. So, two of the dimensions, length and height might already be established. So in that case the golden ratio or Fibonacci gauge can work from one or both of the functional dimension to help design the rest of your project proportionally. Like determining the size of doors, drawers, shelve or leg locations etc..

The Math behind the Golden Ratio:

Now lets learn more about how to use the Golden Ratio. If we take the ratio of 1:1.618 and than take either a length, width or height of our project and divide or multiple it by the ratio it will give us a second dimension of our project. (Example: The length of the table top which equals 48"÷1.618 = 29.666 or lets round it off to 30". This second dimension could be the width of the table top or the height of the table or even the distance between our table legs or all three. Now lets take that 30" dimension and divide it again by the ratio and we will get 18½". This third dimension could be used for the width of the table if your designing a hall table or maybe a width of a drawer front in your table. If you were to start with a small dimension, then you would Multiple by the ratio to get to the larger dimensions.)

How to use the Fibonacci Gauge:

Now let's use the Fibonacci Gauge instead of using the golden ratio of 1:1.618 and your Calculator to find our dimension. Loosen all the knobs and then spread apart the two outside arms to a length say, 48" or 6" on our project plan, then re-tighten the knobs and you will have two more dimension to use and both will be proportional. If we take the larger space between the middle and outside arm, you will measure roughly 30" or 3¾" and if you measure the smaller space, it will be 18½" or 2 ⁹⁄₁₆" on your project plan. That's what makes the Fibonacci gauge such a time saving tool when designing or laying out your woodworking projects. Spread the gauge to one dimension and get two more proportional dimension in a matter of seconds, that you can use in your project plan.

And even if you would like smaller dimension to work with for height and width of drawers, shelve, smaller body carcass sizes or leg thickness for example. Just fold the Fibonacci Gauges large outside arms to your next smaller size like 30" or 18½" and you will get two more smaller proportional dimension sizes to work with and so on.

If you start with a smaller dimension like 18½". Take your Fibonacci gauge and spread the outside arms apart till the smaller space between the outside arm and the middle arm equals 18½". Now you will have two more larger dimension to work with. Like 30" roughly which you will get from the larger space between the middle arm and the other outside arm and 48" which will be the space between the two outside arms. And all the different sizes of Woodpeckers Fibonacci Gauges work the same way.

Using the 12", 24", 48" Fibonacci Gauge for Full size project layout.

For the Woodworker who likes to work directly with the wood and don't like to use project plans, no problem because you can work at full size using your Fibonacci Gauges. Loosen all the knobs and than spread apart the two outside arms to a length say, 12" or 24" or 48" depending on the size of your Fibonacci Gauge. Re-tighten the knobs and you will have two more dimension to use and both will be proportional. If you take the larger space between the middle and outside arm, you will have a second dimension and a third dimension from the smaller space. Your 12" would offer you 7½" and 4½", the 24" will give you 15" and 9" and finally the 48" would be 30" and 18½". You can take these dimension and apply them to your project. That's what makes the Fibonacci gauge such a time saving tool when designing or laying out your woodworking projects. Spread the gauge to one dimension and get two more proportional dimension in a matter of seconds, that you can use in your project plan.

And even if you would like smaller dimension to work with for height and width of drawers, shelve, smaller body carcass sizes or leg thickness for example. Just fold the Fibonacci Gauges large arms to your next smaller size like 7½", 15" or 30" and you will get two more smaller proportional dimension sizes to work with and so on.

Now lets say we start with a smaller dimension like 4½". Take your Fibonacci gauge and spread the outside arms apart till the smaller space between the outside arm and the middle arm equals 4½" and you will have two more larger dimension to work with. They should be roughly 7½" and 12" respectively. And all the different sizes of Woodpeckers Fibonacci Gauges work the same way.

Now it is up to you to apply the Golden Ratio in designing your next woodworking project and using your new Fibonacci Gauge from Woodpeckers to do it.