

Cutting square ribs or veneers safely from a round log with little wastage

Cutting your own lute ribs or other similar sawn veneers is fairly straightforward when you start off with a squared piece of timber – you use a square edge and face as the reference face against the table and fence of your band saw. In some cases you might need to roughly plane an edge to improve its square aspect before ripping.

With a square edge and face you have a stable reference from which to saw from. But if there is no reference it is very difficult to get good results, and it can be dangerous.

So how to get started when you start with a round log? Large logs should be processed by a mill, but you may acquire smaller logs that you want to process on a typical workshop band saw (say up to 200mm diameter, 1m length)

Putting a log onto the band saw is quite risky – it will tend to roll around, causing a safety hazard. And your first cut will likely not be well aligned in the timber, so you can waste a lot of material. You will likely feel frustrated in your efforts to hold it steady and get a good cut into it. But the safety hazard of a rolling log is the main risk.

In order to cut safely from the log, the objective is therefore to derive a square edge and face that is well aligned in the material, from which subsequent rips can be made. The task is to safely devise a means of doing this.

A technique for doing this involves a board slightly wider than the log, and a means of fixing the log to the board to hold it stable. The board can be of any material – MDF or plywood is good.

The face of the board provides our first reference surface that can sit flat on the saw table.

One possibility is to screw the board to the log – however this is risky as we could hit the screw with the band saw blade as we rip into the log.

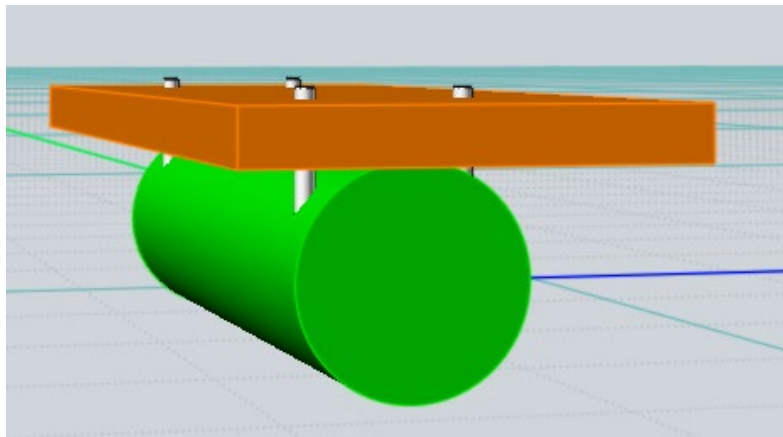
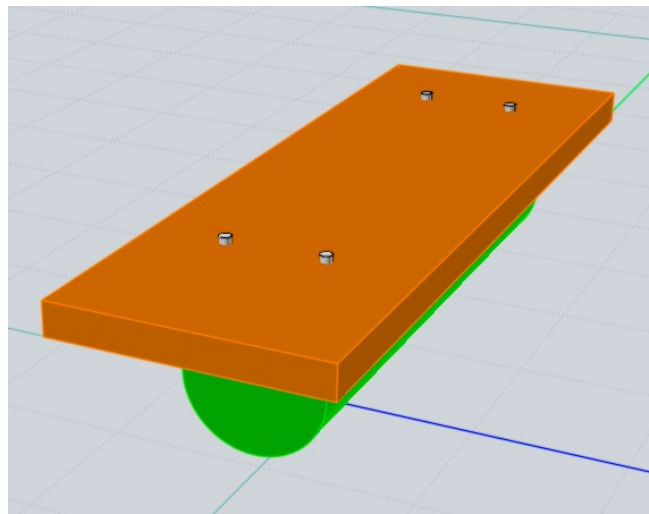


Instead I am using an engineered stepped dowel system – called “Miller Dowel”¹ which comes with a convenient cutting bit that precisely fits the shape of the dowel. Three sizes are available, the most useful being the ones approximately 40 and 70mm long.

The advantage is that the system works like a nail – which you can hammer in from the outside. And due to the custom bit, the dowel fits very closely any hole drilled.

To securely attach the board to the log we need will to use 4 dowels – two at each end positioned approximately a quarter and three quarters of the width of the log. Or you can use 3 at each end if desired for extra security.

The general alignment of the log, board and dowels is shown in the following schematic:



In the following photos I show how this system can be used to saw lute ribs from a yew log, which has been attached to an MDF board.

Hold the log secure - for example in a large vice - and align the board above it as shown above. Drill through the board into the log from the outside with the special bit, then

¹ see <http://www.millerdowel.com/> for manufacturer info – these are widely available in the UK from suppliers such as Axminster. You can also order direct from the manufacturer if not locally available.

hammer in the Miller Dowels from the outside of the board. The stepped nature of the dowels will hold the board securely against the log. Due to the snug fit you probably won't need any glue for this.

Trim the spare dowel protrusions flush with the face of the board with a saw and block plane. This allows the board to sit flat on the table or against the saw fence.

It does not matter at this stage whether the board is precisely aligned on the log or not. In the next step we align the cut with the log.



Now mark a reference line a fixed distance from the edge or centre of the log. This will depend on whether you want the cut to align with the edge or centre of the log.

In the following photograph you can see the line marked along the left hand edge of the yew log.

This reference line will most likely be not aligned with the edge of the board, but it is now aligned with the log. So when we cut with reference to it, it will go nicely along the edge of the log, reducing wastage.

First
Reference
line



Place the assembly onto your saw table and cut by eye along the reference line.

Now place the reference line against the fence and use this to cut the first square line through the log. This cut should be aligned well with the log.



Rotate the log up and onto this cut face, and now we can use the board against the fence to cut a square line, again well aligned into the log.

The result is shown in the next photo.

We are now in a position to cut the log as desired, for example into ribs, sawn veneers or just a square log out of the round log.

Eventually you will saw through the Miller Dowels holding the board to the log. As these are

wood, they will pose no risk to you or your saw blade.

In the final photo you can see the final yew lute ribs cut from the log.

I have also used this technique to cut fingerboards from boxwood logs, and other squared boards for general use.

You will probably find other ways to make use of the Miller Dowels.

