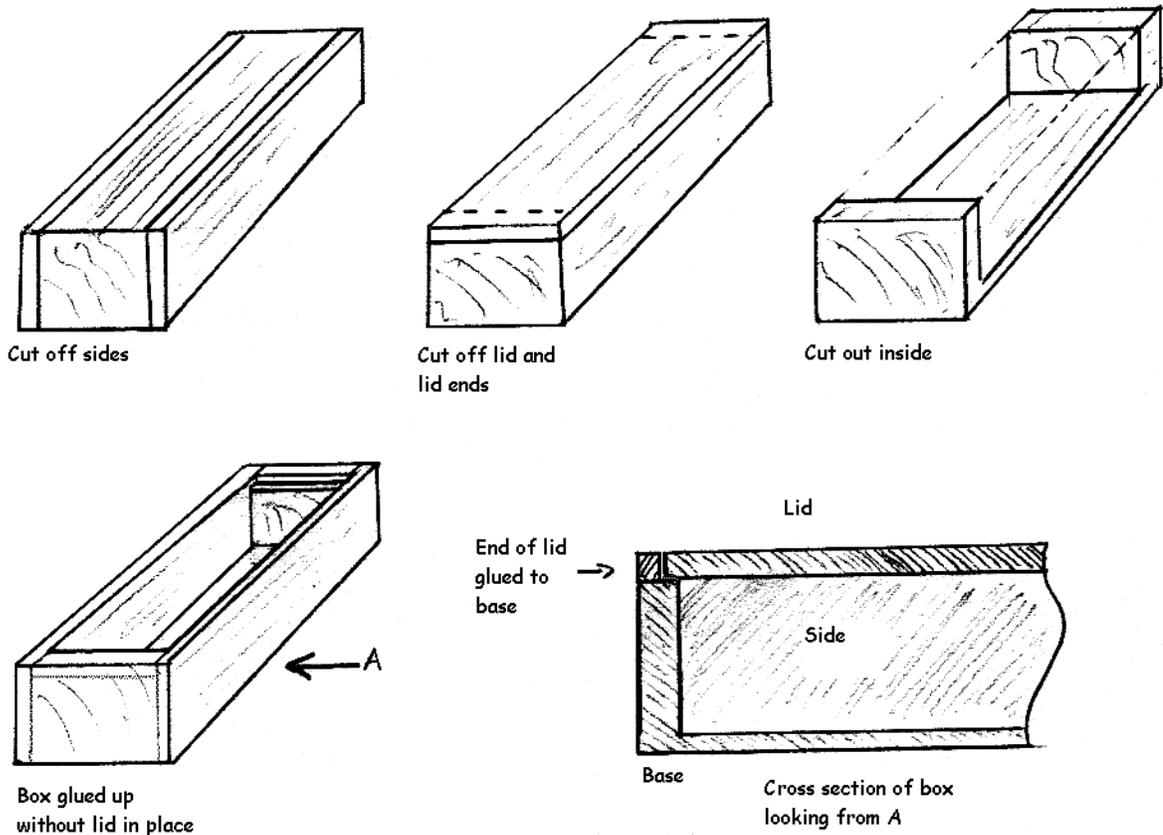


## Making Simple Boxes on a Bandsaw

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This is the procedure that was explained at the September 2005 Main Club meeting. It may seem complex to start with, but is actually quite simple once you have made a few.

1. Start with a squared off block of wood slightly larger than you want the finished box to be. This design assumes that the grain runs along the longest axis. If you want to orient the grain differently, you can, but you must be more careful in dealing with end grain. I recommend you don't do this for your first box. Depending on the width of the kerf that your bandsaw makes, and the cleaning up of the inside that you wish to do, you will lose a few millimetres from your initial size. Your final dimensions will be three to four millimetres smaller all round, typically.
2. Crosscut the ends square and finish off all the side surfaces to the final smoothness you wish to see.
3. You may wish to fit a 6mm blade in your bandsaw. Set the fence to take a 6mm cut (or thereabouts). A wider blade is also OK, but cutting out the inside will waste more wood. You can use the left-over piece from the inside to make another smaller box, so very little wood need be wasted.



4. Slice off the sides of the box from the block of wood. To keep the grain matching, keep track of the locations of the side and the core by making pencil marks. The diagrams above should help you picture the procedure.
5. Depending on the finish you want, you may want to plane the inside surfaces of the sides, as well as the remaining core to remove blade marks. Don't remove too much material if you are concerned about the grain matching.
6. Slice off the lid from the core and clean up the inside as required,
7. Crosscut a small 6mm slice off each end of the lid. These pieces will be glued to the ends to locate the lid, end to end. Keep track of the orientation if you want the grain to match up. Cut out the inside from the remaining core. Make the ends about 10mm thick. The bottom can be thinner – 6mm. If you use a narrow bandsaw blade there will be less wastage. Be aware that the ends are end grain and somewhat weaker until the box is glued together again. At this point, any cracks in the wood may result in pieces of the ends breaking off. Just glue them back together carefully. The glue will clean up when you trim the ends and be almost invisible.
8. Smooth the inside of the cutout with a rabbet plane if required. Be careful with the end pieces as noted above.
9. Glue the sides back onto the combined end and bottom piece. Because the kerf between the lid and ends has removed some material, the sides will be slightly large. If you are worried about aligning the grain, use the extra material to shift the sides slightly to get the best match.
10. The lid should be a good fit already due to the order in which the cuts were made. Place the lid in place and glue on the cut off ends of the lid onto the ends. Position them to close up the gaps at the ends of the lid. Be careful not to glue the lid in place! The box can be clamped in a vise or between clamps until the glue sets.
11. Make a small handle to your own design and glue this onto the centre of the lid, so that you can remove the lid.
12. Remove the box from the vise or clamps and trim the overhangs at the top and bottom using a conventional hand plane. Pay attention to grain direction to avoid tear-out.
13. Trim the ends with a crosscut on the circular saw and/or a block plane. Be careful to avoid tear-out of the end grain by planing towards the centre from each side.
14. Soften the edges with 220-grit sandpaper and generally sand as required. An oil finish that does not build up too much is preferable, so that the lid retains its good fit and does not stick.

There are numerous variations of this design that you can make. This is one of my favourites. If you have a scroll saw you can also use this to make the cuts. It won't be as precise as a bandsaw, but you can be more creative in the shapes you make. The box doesn't even need to have square sides, as long as two sides are vertical to make fitting the lid easier. If you don't mind slightly larger gaps and have a fine bandsaw blade, then the shapes are limited only by your imagination.