



## **How to fit the Prokraft 100mm round box hinge**

The Prokraft 100mm box stop-hinge is a round hinge designed for woodturners to make a hinged box suitable for small jewellery items, coins and watches amongst many other applications.

The following guide is an example of the correct fitting of this hinge, but you may have your own way of using it depending on your tools and equipment.

The turning diameters of the top and bottom ring (called a leaf) of the hinge are slightly different so it is important that each section turned is done for each specific leaf.

In this example we started with 2 pieces of ash 110mm square and roughly 30mm thick – this will be a cross-grained turned box showing the grain pattern across the lid and the end grain on the sides.

### **Step 1 – preparing the blank**

- a] Mark the centre of the blank and then using a pair of compasses mark a circle of at least 105mm.
- b] We used a 38mm Forstner bit to drill a rebate so we can mount the piece on a chuck
- c] If you have a bandsaw, trim off the corners, this means less mess and wear on your turning tools at the lathe.



You should end up with a piece like this

### **Step 2 – making the top**

- a] Mount the blank on the lathe and turn the face flat and the edge round
- b] Turn the inner diameter of the lid so that the top leaf (the part with the lifting lip) fits onto the blank. This should be turned just under 3mm deep, but if it is deeper it can be trimmed and adjusted later. Use the hinge to test-fit until it is a good fit.



You should end up with a piece that looks like this

c] Using the top leaf place it onto the blank and use a pencil to mark the inner ring ready for hollowing:



Once marked you can hollow the inside of the lid, making sure you turn the pencil mark away completely to obtain a flush fit between the hinge leaf and the wood inside the box.

We recommend turning the inside of the lid with flat sides as this is where the piece will be held when it is turned around and re-mounted for finishing the outside of the lid section.

It is very important that you hollow deep enough to enable sufficient space to re-mount on your chuck jaws when the piece is turned around – ours was hollowed to around 17mm.

d] Once you have hollowed out the inside you may wish to sand and finish the inside whilst you have easy access to this part – once turned around finishing can be difficult. Do NOT use wax on the parts that connect to the hinge as it will require gluing later.



You should end up with a piece like this

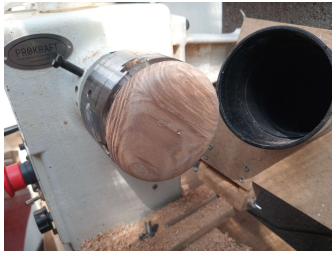
Ensure it is deep enough to mount chuck jaws inside

Make part of the edge flat for re-mounting

e] You can now remove from the chuck and turn the piece around and re-mount on suitable sized chuck jaws – we used 50mm dovetail jaws however the piece was held by the jaw plates and NOT the dovetail section – this is why you need ample depth inside the lid.

If you have enough space inside you can give consideration to mounting off-centre and creating a sloping lid. Our example will show a flat turned lid.

f] you can now turn and finish the outside, turning away the rebate made by the drill or using it to add another separate section (as we will show later) on the top as decoration/detailing.



You should end up with a piece like this that just needs sanding and final finishing.

### Step 3 – The base

The process for the base is the same as the lid however the hinge knuckle (specifically the lugs that create the stop function) means that the initial step to the main side needs to be quite shallow this will be obvious when you push the hinge onto the blank once the first rebate has been cut.



Once the inside is complete you can do a test fit to ensure all the parts fit together correctly as above. Then turn the part round and finish in the same manner as the lid.

### Step 4 – Finishing & assembly

Once you have made the parts and finished them as required you are ready to assemble the parts, for ours we made a small finial to decorate the top from the scrap of original timber.

Before gluing make sure that any wooden parts are completely dry and will not move or warp – movement in the wood may damage the hinge.

We usually use 2-part epoxy glue but you may have a preference for another type.



Once finished the hinge closes with gravity and can be opened by the small built in lip to the front and will open to a stop point just past 90 degrees.

We hope you enjoy making your box.

