HOW TO TURN A HANDLE FOR WOODTURNING TOOLS

Introduction

As your woodturning journey continues, you may eventually wish to acquire your own set of tools or at least the basic ones to start off with. You can purchase these either handled or unhandled. The *consensus* amongst the club's members is to go for the latter and make the handles yourselves, as this is a useful exercise which will help your skills develop. It is also quite satisfying, especially as a beginner, to make something practical that you can use.

As in the case of many pursuits, there is usually more than one way to do the same thing and you will get different explanations and opinions depending on who you talk to within the club.

In this note, I have incorporated tips from the first of Mike Darlow's three great books, *The Fundamentals of Woodturning,* as well as advice from some of the club's very experienced members, such as Jack Butler, Ken Cooper, Meg Webster and Gorgi Armen. I thank them all for their generosity with their time and good humour.

Getting a handle…

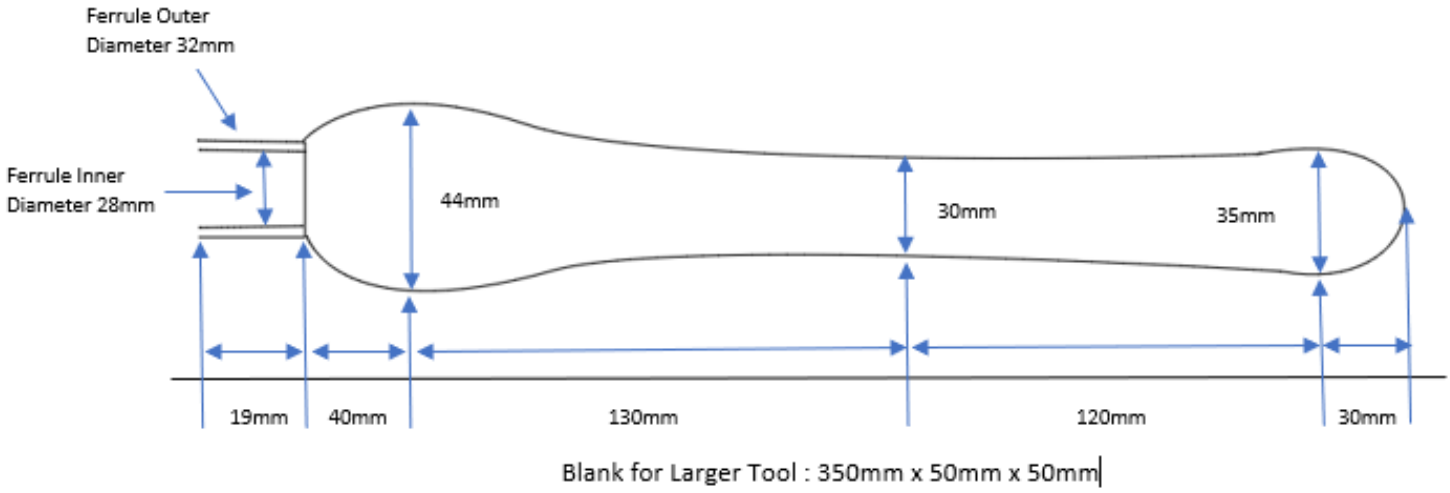
- Use a blank of circa. 350mm x 50mm x 50mm.
- Rough the square blank to its largest diameter using a rouging gouge.
- Face the right-hand end to a square shoulder using a skew chisel.
- Remove the cylinder and using a drill press bore a tang hole in the right-hand side using a Jacob's chuck and a drill bit diameter to suit the tang. Measure the length of the tang and wrap masking tape around the bit to drill a little deeper than required.
- An alternate method is to bore the above tang hole using a Jacob's chuck on the lathe; however, this is probably suited to more experienced turners.
- Remount the cylinder with the bored hole located over the cone-tail centre, i.e. back to how it started.
- Caliper the maximum diameter and add an extra 2 mm, to allow for a finishing cut. Thus, if the maximum diameter is 44mm, turn the cylinder down to 46mm. This leaves 2mm to play with once the cylinder is finished with a skew chisel and then sanded.
- Mark out the handle and using a simple pencil gauge is helpful here. Table 1 below provides a rough guideline to the dimensions which can be generally applied but ultimately you will find a shape that suits you.
- Ferrules are typically made of brass, stainless steel or copper. Note too, that their size varies depending on where they are from and thus may differ from the sizes

used in this note. In any event you will use a Vernier caliper to measure both the outer and inner diameters of the ferrule you have selected for your project.

Table 1 – Larger Tools

(mm)	Outer diameter	Diameter	Length
Ferrule	32	28 (inner)	19
Largest	-	44	40
Smallest	-	30	130
Left-hand end	-	35	120
End-taper	-	-	30

Figure 1



- Again, it's important to stress that the data in Tables 1 & 2 merely provide a rough guideline and you may prefer the largest diameter to be say 30mm from the end of the ferrule (which seems to be the case with many of the club tools) or the end-taper to measure 20mm, but it's a matter of preference and not a big deal either way. Make the handle that feels comfortable in your hands!

Table 2 – Smaller Tools

(mm)	Outer diameter	Diameter	Length
Ferrule	25	22 (inner)	17
Largest	-	42	40
Smallest	-	22	130
Left-hand end	-	30	120
End-taper	-	-	30

Next…

- Caliper the ferrule spigot with the parting tool. Initially target a diameter of 29mm even though the desired size is 28mm (in the case of the larger tool). The extra 1mm allows some flexibility for a snug fit based on trial and error.
- Here are four tips:
    - Before tightening the tailstock into place, use the handwheel to extend the swallow (the bit that moves in-and-out) about 50mm or so. This will make life easier as you simply use the handwheel to remove the tail-centre from the cylinder in order to trial fit the ferrule. Some folks prefer to transfer the cylinder into a chuck which I did with an already rounded 43mm cylinder of Tasmanian Oak purchased from Bunnings (I know, I know… cheating!);
    - Be patient here as it's very easy to cut too much off the spigot and a loose ferrule essentially ruins your project;
    - Cut a tiny bevel at the spigot's right-hand edge with the skew chisel short-point which will enable it to slip on more easily; and
    - Another ferrule can be used as a mandrel to hammer the ferrule onto the spigot.
- Once the ferrule is sitting nicely, trim any waste with the skew long-point to make the spigot flush with the ferrule.
- Caliper the smallest and left-hand end diameters, again using the parting tool.
- Using the roughing gouge, plane the body of the handle to near its finished profile, always cutting from larger diameter to smaller (meaning, try not to plane uphill!).
- Shape both ends of the handle using a skew chisel (Ken Cooper's preference) or a spindle gauge.
- Sand and coat the handle (e.g. with shellac polish) and carefully do a final cut using the parting tool to sever handle from drive centre with the lathe at a slow speed for safety.
- You should now have a nice handle!

Inserting the blade…

- This is the fun bit as it brings your project together!
- To insert blade into the handle, rely on Isaac Newton's 3rd Law *that every action has an equal and opposite reaction.* Thus, insert the tip of tang into the spigot and using a wooden mallet, point the handle down and strike it sharply on the top.
- Watch the magic and repeat until the blade is secure. Be careful not to overdo it as the spigot may split (been there, done that!), although the ferrule should do its job and keep everything secure. Should this occur, don't panic and use a bit of 5-minute epoxy.
- Peer down the length of the tool to check everything is straight (which it should be) and finally shout WOO-HOO on top of your voice!

JR