

# Using the Eccentric Chuck

## Safety

In the interests of safety and overall good practice please take the following precautions:

1. Always rotate the workpiece by hand before switching on the lathe. With offset turning it is even more important than usual to observe this.

2. Always use suitable eye and face protection. Use the lowest speed possible to begin with. Experience and increased understanding of off-set, speed and timber density combinations will soon allow you to reach the best operating speed.

## Use of the glue chuck

Before using the glue chuck your timber must undergo some initial preparation:

1. Place your timber between centres and rough down to a cylinder.

2. Square off one end preferably making it slightly concave, leave a 12mm diameter spigot approximately 3mm long, this is to assist the location when gluing to the aluminium plate.

3. As you are turning without the tailstock support, the timber should not exceed the accepted maximum ratio of 3:1 length to diameter, eg. 2" diameter x 6" long.

4. Before applying the hot melt glue it is advisable to warm the aluminium plate and the end of the timber to be fixed together. Apply the glue from the gun either to the timber or the plate and press firmly together and allow to cool.

## Turning an eccentric goblet

Leaflet Ref: 951494

1. Fix the aluminium plate with the timber attached to the metal plate and grip the whole assembly to your chuck using the appropriate size jaws.

2. Start by hollowing out the bowl section and shaping the outside profile, with the offset on a zero setting, at approximately 1200rpm.

3. Now turn, sand and polish the top of the first of the 'discs' and the inside and outside of the bowl of the goblet.

4. Start to turn the first of the eccentric discs by removing the screw from the zero position and move the plate on to either of the positions marked 1, replace screw and fully tighten. Now you can proceed to turn the next disc which is the bottom of the first disc and the top of the second disc. Sand and polish before moving on to the next disc.

5. Before starting to turn your next disc it is advisable to reduce the speed of your lathe down to 750rpm, remove the screw from position 1 and slide the plate to position 2, replace the screw, tighten and turn the next disc as previously described.

6. Turn the remaining discs and then you must reverse the procedure back to zero once again where you will turn the base.

7. Finally part off carefully/ supporting the workpiece at any concentric position as you do so.



Online video available

# Turning a Goblet with Offset & Spiralled Stem

By Tony Witham

## Turning an eccentric goblet

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**1.** Fix the aluminium plate with the timber attached to the metal plate and grip. the whole assembly to your chuck using the appropriate size jaws.

**2.** Start by hollowing out the bowl section and shaping the outside profile, with the offset on a zero setting, at approximately 1200rpm.

**3.** Now turn, sand and polish the top of the first of the 'discs' and the inside and outside of the bowl of the goblet

**4.** Start to turn the first of the

eccentric discs by removing the screw from the zero position and move the centre plate onto the first offset position, replace screw and fully tighten. Reduce the speed of your lathe. Now you can proceed to turn the next disc which is the bottom of the first disc and the top of the second disc, sand and polish before moving on to the next disc.

**5.** This time offset the centre plate to the next position ensuring that you are moving in the same direction as before. Retighten screws. Remove the assembly from

the chuck and loosen the centre screw of the plate which is attached to the wood and rotate in a clockwise or anti-clockwise direction depending on whether you want a left or right hand spiral. Also note how many divisions you have used, as it is quite important that you move this same amount each time. Tighten the screw and replace onto the chuck, you are now ready to turn the next disc, not forgetting to sand and polish before moving on to the next one.

**6.** To turn the remaining discs all you now need to do

is rotate the indexed plate by removing from the chuck. Slacken the centre screw to enable you to rotate the work in the same direction and by the same amount of holes as previous. Carry on this procedure ensuring that you leave enough for two last discs as you will need to reverse the procedure to get the stem of the goblet back to the centre of the base.

**7.** Finally when you have turned and polished the base, carefully part off, supporting the goblet at any concentric position close to the base.