

Staves in a Spiral

Introduction

As with all woodworking stock preparation is crucial. Staves made from stock of the same dimensions will give a solid blank.

The basic principle is to drill through a stave blank at an angle. Varying the entry and exit points will give different results. There are limitless possibilities. The number of staves does not matter but an even number will be easier to use (see below).

The composition of the stave blank is simply up to your imagination, eg. contrasting woods, veneers, etc. However, to ensure a good result, there should be no hole down the center, or this might show up when turning. This will dictate how you make the staves which I leave up to the reader since there are different approaches and we all have our favorite.

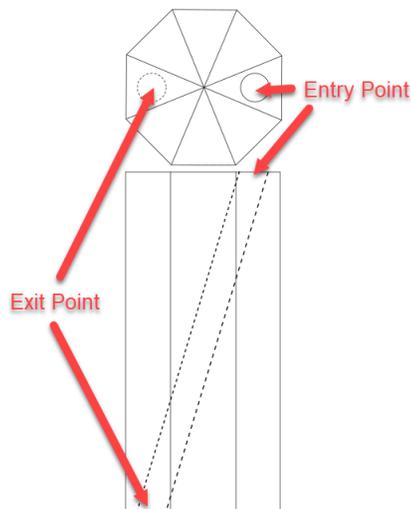
Since you will be drilling at an angle it must be done on the drill press using a vice. This can be done by:

- Tilting the drill press table
- Tilting the blank in the vice
- Use an angle vice – this is the easiest and likely most repeatable

The blank **must** be held firmly in place to avoid either an out of round or wandering hole. It is suggested that you use gradually increasing bit sizes or you might split the blank. Holding the blank firmly in place will be aided by having an even number of staves giving opposing flat surfaces.

Method

- Prepare stock to produce a staved blank of between 1" and 1.25" in diameter – this gives some margin for error
- If necessary, sand the cut surfaces to ensure a sound glue-up with no gaps
- Make sure that there will be no hole down the center
- Make sure that the glue-up is accurate
- Since you will be drilling at an angle through perhaps different woods and different grains leave the glue to set for a few hours for strength
- Decide upon the drill bit entry and exit points – this determines the angle to drill at



- Now the ends of the blank need to be cut at an angle so that they are square to the hole for turning
- Complete the blank to your choice, eg. add end pieces, and trim the ends
- Put on the lathe and turn to your desired shape – remember you will have a blank that may not be out of balance at the start so take light cuts until it is round

The diagram above shows that the drill passes through the blank parallel to the sides. However, that is just for illustration. In principle, the drill bit can start at any point and pass through the blank at any angle providing limitless possibilities. The key is to be able to hold the blank firmly in position while drilling and get clean entry and exit points.

Starting a clean hole at an angle is often difficult and can depend upon the type of drill bit used. There are probably as many opinions as people as how to do this. Starting with a small pilot hole and increasing bit size gradually can help. As the ads often say, “your result may vary”.

Experimenting and coming up with something new and different is what gets us up in a morning! So go and enjoy your turning. We all want a good result, but what we learn during the journey about woodworking and ourselves is often just as important.