



Review of Axminster Power Tools Eccentric Spiralling Chuck

Basic Anatomy

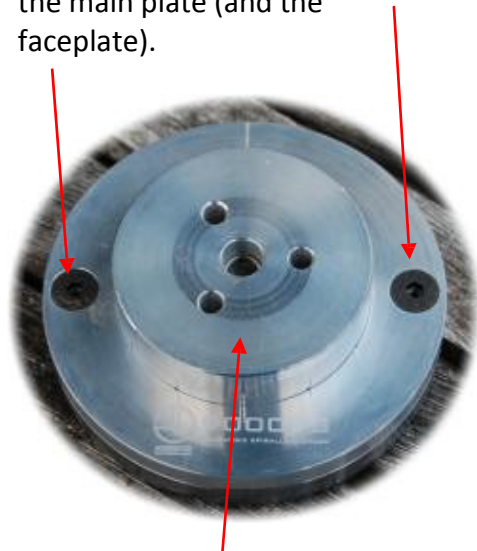
The Eccentric Spiralling Chuck was designed by Tony Witham and consists of three main components. These are (i) a faceplate ring (which enables the chuck to be fixed to the Axminster 'C' jaws), (ii) a main plate (which is adjusted according to the amount of offset you need) and (iii) a faceplate. The faceplate sits on the main plate and, as faceplates go it's pretty small. This chuck is really only for small or medium- sized work. Although there are 3 screw-holes supplied in the faceplate, the instructions suggest warming up both workpiece and faceplate and then fixing the workpiece on with hot-melt glue. I opted to use the screw-holes – much safer.

Machine screw holding faceplate in place.



View from rear. This section fixes on to the Axminster Woodturner's Chuck 'C' jaws.

Loosen these machine screws to adjust the amount of offset of the main plate (and the faceplate).



View from front. Note the small faceplate which holds the workpiece. The faceplate is held in place with a machine screw accessible through the rear of the main plate.



This view shows the main plate and the faceplate separated. The faceplate has been placed upside down in the picture so you can see the indexing marks for use when carrying out spiralling work. Note also the three countersunk holes used to affix the workpiece (or a sacrificial wooden plate)

Integral indexing pin.

What's it for?

Now, before we go any further, let's be clear about what can and can't be achieved with this chuck. If you want to do twistwork (e.g. barley-twists or ribbon-twists) this isn't the tool to use. It wasn't designed for it. If you imagine goblets and lidded boxes with stems which consist of a pile of offset wooden disks this is the tool to be using. Or, alternatively, if you want to make a lidded box with a lid covered in geometric circular line patterns like the one on the right (copied from the Axminster website), the eccentric spiralling chuck will do a good job for you.



What's it like to use?

I have a medium-sized lathe (an Axminster M900 – it's basically a copy of a Jet 1236). My main concern was whether the out-of-balance forces would introduce too much vibration and strain the headstock bearings. First of all I tried the chuck set in eccentric mode – I really needn't have worried. The aluminium eccentric plate and faceplate hardly produced any vibration at all. After mounting a lump of wood onto the faceplate there was still no cause for concern on that score.



Workpiece mounted on chuck – but there's a snag...



Now I can't get the Allen Key in the screw to offset the eccentric plate!
(Photo deliberately darkened for clarity!)

The above issue is one to be careful of. I was able to reduce the diameter of the workpiece so I could move the Allen Key in a couple more millimetres to adjust the eccentric plate.



...and here we have an example of the way in which you can use the chuck to turn a series of offset disks, which you can use to create your goblet stem. You can use the nine positions (4 each way and a central one) of the eccentric chuck to produce a straightforward step-stair effect. If you want to be a bit more adventurous you can use this along with the spiralling faceplate to make the disks go round in a spiral. If I'd done more disks you would have been able to see this more clearly but I was a little pushed for time. If you use the spiralling faceplate you have to remove the chuck from the four-jaw chuck each time you advance the faceplate – which is a bit fiddly and time consuming.

So what's the verdict?

I haven't fully explored the possibilities of this little device but there are quite a number if you give it some thought. An oval lidded box shouldn't be too difficult, nor should a latticed-lid box. For the latter, you'd turn concentric rings on one side of a flat box lid and then concentric rings with the chuck in off-centre mode on the other side. Oval photo frames are also a possibility. As with any off-centre work the size of the workpiece is limited by the capability of your lathe to handle the out-of-balance forces.

The final thing I need to comment on is the instruction leaflet. It consists of one A5 sheet printed on both sides and, to be honest, a better job could have been made of this. It was nowhere near explicit enough, nor was it in any way comprehensive. I guess if you're going to buy one of these you'll have a fair idea of how to use one but these instructions were sadly lacking unfortunately – but don't let this put you off buying the chuck itself though. Would I buy one? Well I might if I made a lot of lidded boxes or spiral-stemmed goblets but I'd be a little wary of buying it in a wave of enthusiasm and then leaving it unused in a drawer for years – we've all done it.

Cost: £39.95	Axminster Order Code: 900093
Build Quality: ★★★★★	Usefulness: ★★★
Ease of Use: ★★★	Value for Money: ★★★★★

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