

## Making a jam chuck for a hollow form

In February 2013 the demonstration was by Neil Brown who gave a presentation on various ways to chuck turning projects. One of the items shown was a commercial jam chuck to mount a hollow form to turn off the tenon. The device applies pressure on the bottom of the inside against a live centre in the tailstock, which prevents caving thin walled hollow forms.

This was the chuck which Neil purchased and showed to the meeting, the Kelton Woodchucker Mandrel.

<http://www.woodturnerscatalog.com/p/109/5501/Kelton-Woodchucker-Mandrel>

I did some internet searches after the meeting and found a few other sites which show versions of this useful chuck.

Olaf Kirstens version the "Kirsten Kone".

<http://www.oskarkirsten.com/kirsten-kone>

Another US woodworker Don Pencil has what he calls a Jam Chuck. Click on the Don Pencils Multi-Purpose Jam Chuck on his site. The site design does not provide a separate link for the page for this item.

Just need to make your own cone to centre the hollow form in the opening.

<http://www.donpencil.com/>

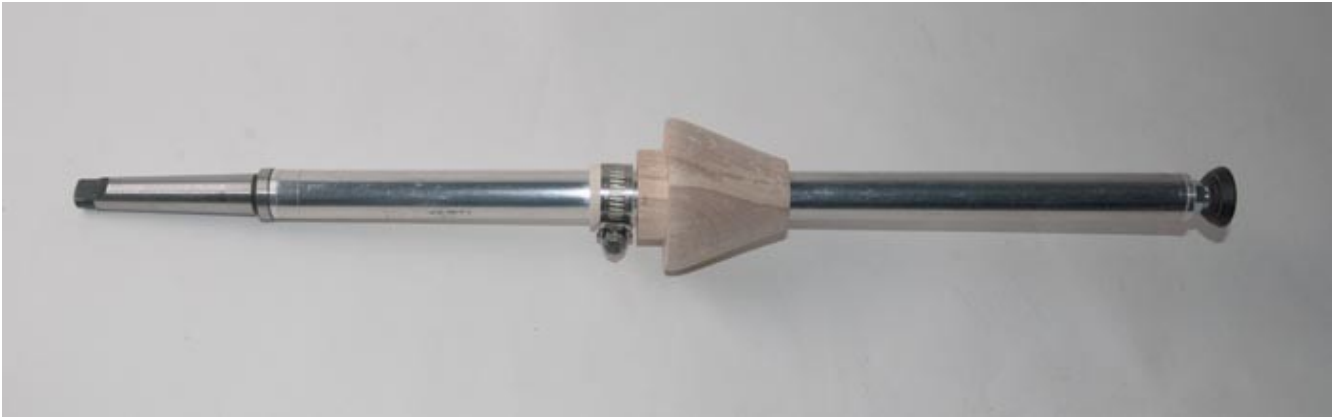
Rubber Chucky company (yes the actual name of the company sells one as "Reverse Chuck". \$85.

<http://www.rubberchucky.com/shop.php?HFC>

I have not yet started to make hollow forms, but my wood turning friend has. His latest now needs the tenon to be turned off so he asked if I could make a version of the jam chuck for him.

This is the completed jam chuck. About 16in long.

In this case the lathe uses an MT2 taper in the spindle. Other MT arbors are available.



The components.

The shaft can be made from many materials, a long wood dowel, a piece of pipe with bushings at the end, a solid piece of metal, or in this case, a piece of aluminium rod with bushings for the end.

The MT2 arbor has 1/2in dia x 20 tpi threads.

One source is Grizzly, who call this an MT2 drill chuck arbor.

<http://www.grizzly.com/products/DRILL-CHUCK-ARBOR-MT2-1-2-X-20/T10082>

Another is Victor Machinery, which is cheaper, but they have \$25 min order. Scroll down on this page to "Threaded arbors for drill chucks".

<http://www.victornet.com/subdepartme...rbors/562.html>

Another source is Cripe Distributing where they call it "MT2 Work Arbor". In this case 3/8in thread.

The foot is from some steel shelves. This was replaced by a caster.

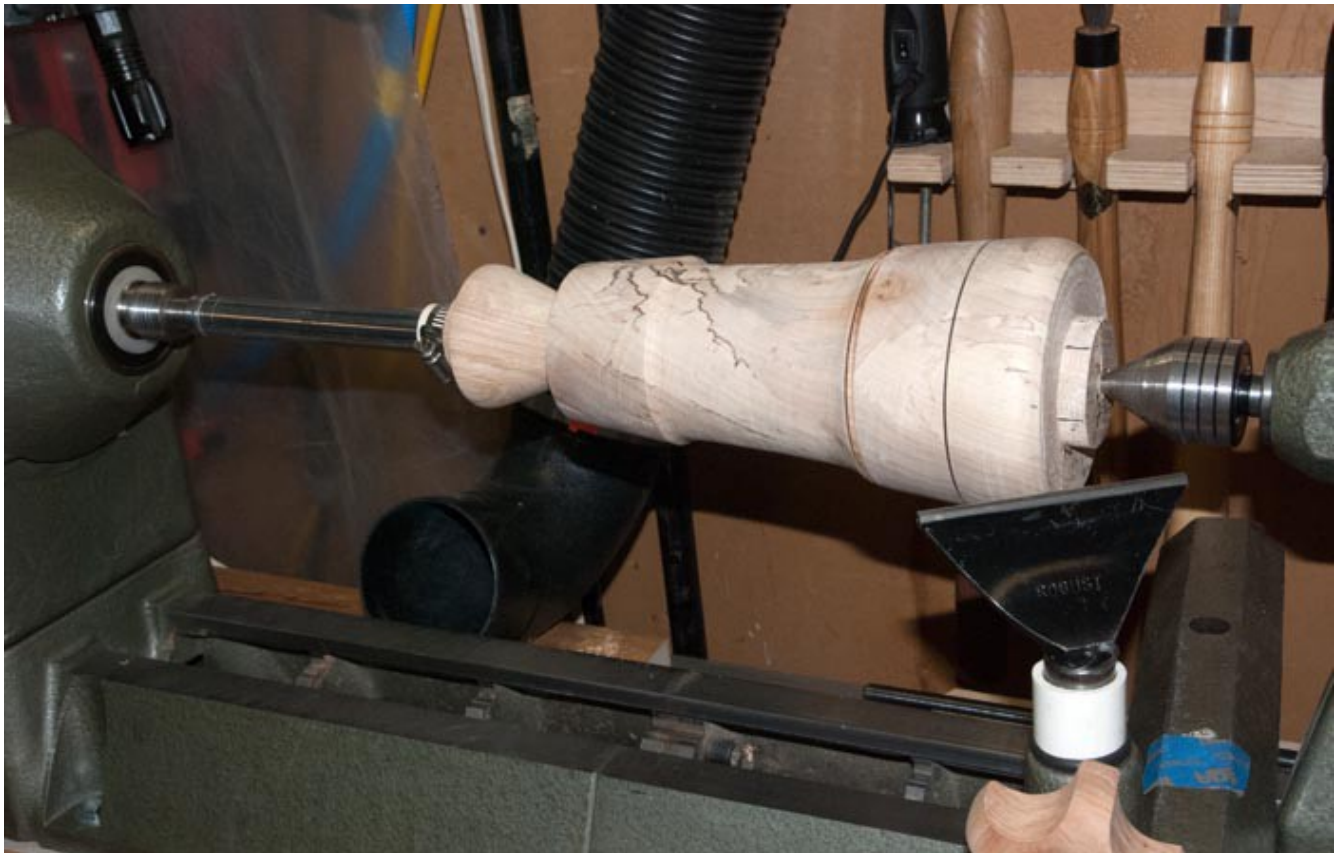
The cone is drilled for the shaft then tapered to fit the dia of the foot which is the min opening.

The tube is only 1/16in wall so I did not want to use a locking screw, too easy to ding the tube.

I could have used the hose clamp alone, but did not want a design to scratch up the tube. I cut a 3/4in PVC coupling in half, then down the side so I have a small compressible gap.



This is how the jam chuck would be used. I do not have a hollow form, so using this wood vase. The shaft foot is applying pressure against the tailstock.



The jam chuck piece is positioned in the top opening then the hose clamp tightened to keep this in place. It keeps the work centred with minimal pressure.



I hope this inspires someone else to make one of these. It is not too difficult.