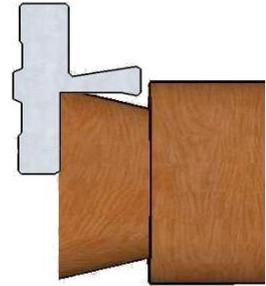


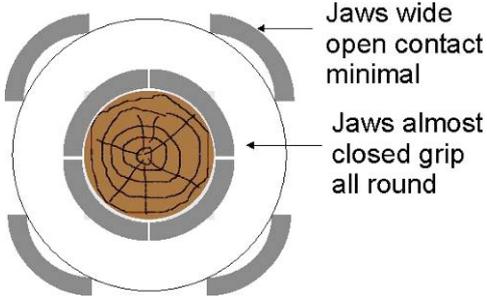
A FEW THOUGHTS ABOUT CHUCKING

My first wood turning chuck was a "SuperNova", a small scroll chuck made in China and sold by Teknatool. I have never liked it much. For reasons I have not been able to discover they had gone against all engineering practice and made the chuck tighten anti-clockwise. An idiotic thing to do in my opinion. They also decided not put a dovetail form on the inside of the jaws which are parallel with a very small dovetail section at the outer end. This indents the wood to stop it slipping out.

You need a parallel spigot for this particular chuck. This confuses some people. We did once witness a demonstrator turning a dovetail spigot to fit in one. A dovetail in a SuperNova provides about as poor a grip as you can imagine, contacting as it does, only the outer edge. Excessive tightening to compress the wood then becomes absolutely necessary.

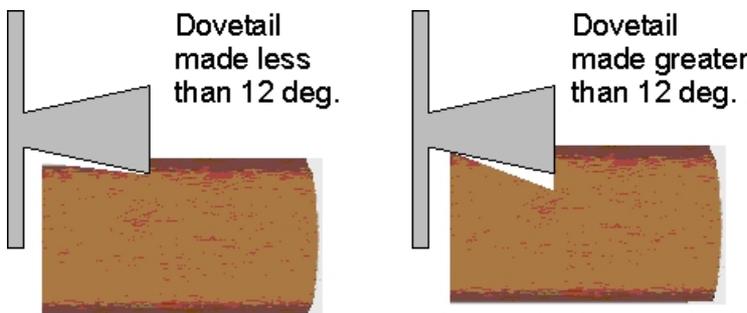


Using a normal chuck (left and below) demonstrators at the club sometimes work six inches away from the chuck without a tail stock in support. This surprised me at first. I said 'If I tried that the wood would take off and fly across the workshop'. A slight catch would rip it out of the jaws. How do they get away with it? The secret, I now realise, is in the amount of contact between jaw and wood. The trick is to make the dovetail just the right size for the jaws in use. There is only one correct diameter for a given jaw set, and only one angle that truly fits.



A carelessly made dovetail spigot grips only in a small area:

A combination of a poorly angled dovetail and a larger diameter than optimal means a very small area of contact, often compensated for by compressing the wood. This is hard on the scroll and makes re-chucking less easy than is the case if you work accurately and don't over tighten.



The way accuracy is normally achieved is to ensure the slant on your skew chisel is the same angle as your chuck

- in my case 12 degrees - and to get the size right by use of callipers. I like to have two hands on the chisel so made a ring gauge to slip over my live centre:



This simple device obviates the need for callipers and enables me quickly to zip a spigot down to size, simultaneously checking the angle by comparison, without fear of going under size by accident.