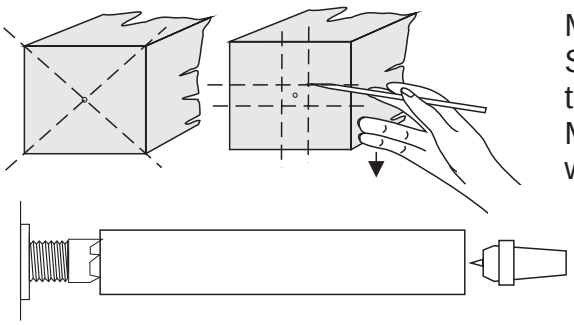
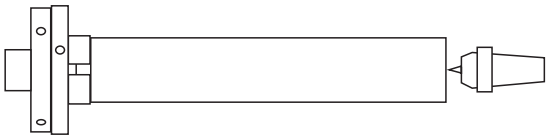
MOUNTING THE WOOD

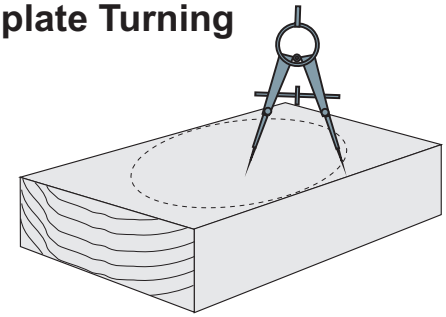
Spindle Turning



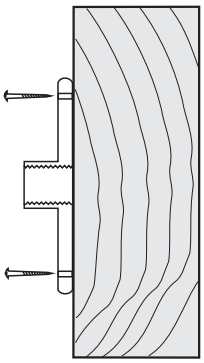
Mark the ends of the wood to locate the centre.
Secure the wood firmly between the spur drive in the head stock and tail stock centre.
Make sure the spur drive is driven well into the wood and the tailstock is secured.



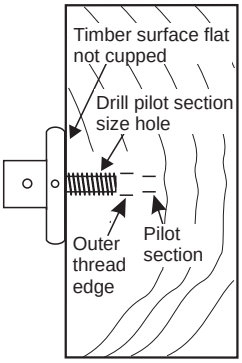
Faceplate Turning



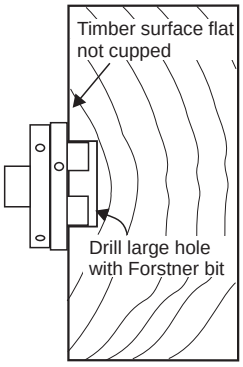
Mark the centre on the side that is to be secured to the lathe. The faceplate or chuck should be attached to this side of the wood.



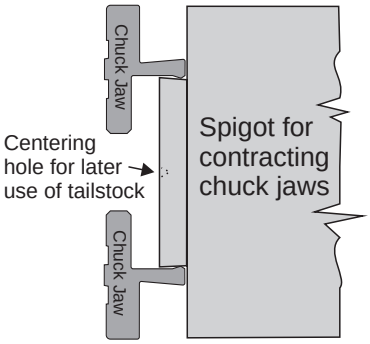
A faceplate (left) is ideal for larger pieces of wood.



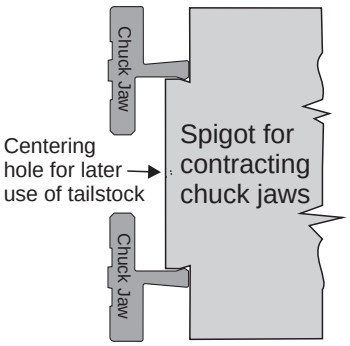
A screw chuck (left) is better for smaller pieces of wood. The screw may be part of a faceplate or gripped in a scroll chuck.

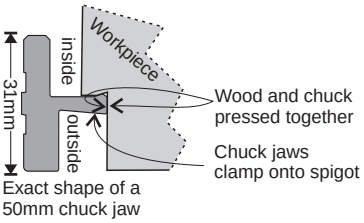


Drill a hole with a Forstner bit (left) and expand a chuck into it.



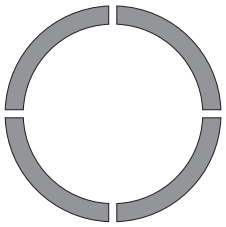
The traditional recommendation is that the spigot is cut at a slight angle. This angle must be very slight (for Nova jaws) as the protrusion from the jaw that grips the wood extends just 0.5 mm from the jaw surface.



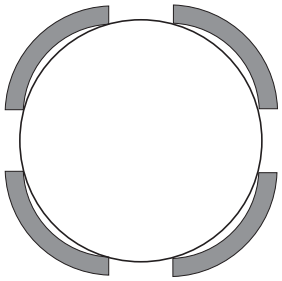


A more accurate cut, particularly for hard woods, is to make a spigot with no angle and then to cut a sharper angle close to the base of the wood. As the chuck is tightened the jaws are drawn firmly to the base of the work.

Diameter of the Spigot or Dovetail

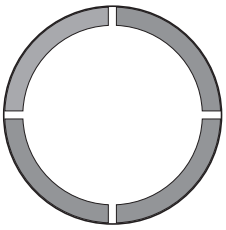


Teknatool 50mm chuck jaws as made. A circle with inside diameter of 44.5mm and outside diameter of 53.5mm. This will grip a spigot/tenon cut to 46mm, allowing for a little compression of the wood fibres.

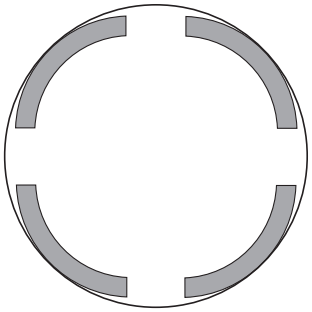


If the spigot/tenon is cut to 65mm then the chuck jaws will grip the wood at only 8 points.

Chuck	Round				Square	
Size	Spigot		Dovetail		Min	Max#
	Ideal	Max#	Ideal	Max#		
Pin	11 *	22	26	38	10	25
1"	25	41	40	57	24	38
35	35	51	46	64	30	44
50	46	56	54	68	35	50
70	59	75	72	89	40	60
100	81	95	97	116	60	80
130	110	154	130	184	80	130
	* no inside grip		# may vary with chuck type			



If the dovetail is cut to 54mm then the jaws will press evenly on the wood all around the dovetail.



If the dovetail is cut to 70mm then the chuck jaws will press on the wood at only four points.

Fitting a Woodworm Screw

Note that the Nova Woodworm Screw has a thick head (left in image above) with four flats on it. When fitted in a chuck the flat ends of the four jaw slides should press against these flats. The curved ends of the four chuck jaws are then very close to the round part of the Woodworm Screw and the narrow collar stops the Woodworm Screw from being pushed further into the chuck.
This Nova Woodworm Screw is designed to screw into a 8mm hole. For very hard woods an 8.5mm hole may be better.
Be aware that other chuck manufacturers make screws of differing sizes.