

DISK CUTTER

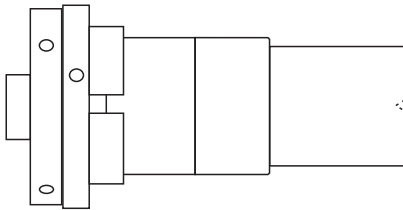
The drawings here are for a 50mm disk cutter. To make a cutter for larger diameters keep the length the same but the tube will be wider.



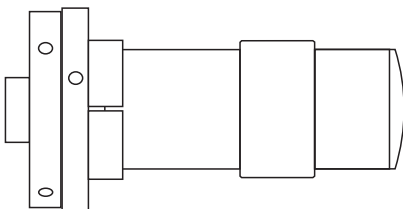
Two lengths of tube are needed: one about 100mm long to have a cutting edge; the other about 30mm long to act as a ferrule on the mallet-struck end.



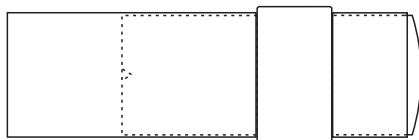
These tubes need to be fitted to a piece of wood so that the top can be hit with a mallet and a sharp edge can be maintained around the bottom end. Start with a wood block 120 x 60 x 60 and turn it down to a round 120mm long by 55mm wide. The grain must be along the long axis.



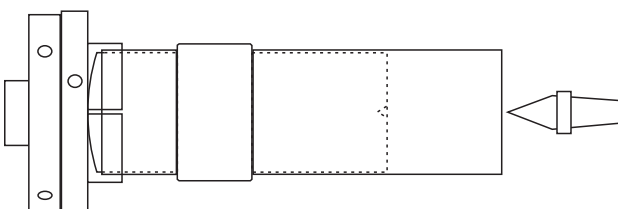
Mark this block at 35 and 65mm from one end. The wood between these marks is to remain at 55mm wide. Mount the wood in a chuck and turn the long end down to very nearly the internal diameter of the tube. The tube needs to be a tight fit. Do not put it permanently on the wood at this stage. Cut a V mark in the centre of this end to help with later re-mounting of the disk cutter for sharpening.



Turn the wood around, remount it in a chuck and turn the short end down to very nearly the internal diameter of the tube. The tube needs to be a secure fit. Mark a point 30mm from the larger centre part as this line will be the end of the tube when it is fitted. Cut the end of the wood to a curve but not right down to the line.



Push the metal parts onto the wood and knock them firmly onto place. If you are worried that they will not be a firm fit then apply a gap-filling glue.



To sharpen the disk cutter mount it in a chuck. To ensure perfect centering, bring up the tailstock to the central V cut. Use the sharpening tool of your choice to chamfer the outside of the tube. Cut a little chamfer on the inside to prevent rollover of the cutting edge. To touch-up or re-sharpen use a Dremel or round file on the inside bevel.