

Basic woodworking tools



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A mortise gauge is used for marking the double lines required when setting out mortise and tenon joints, hence the name. It has one fixed and one adjustable spur or point. These two points should be adjusted to match the width of a chisel. The stock should then be set to position the mortise in the correct place on the timber.





Block planes come in a variety of designs but their key difference from other planes is the low angle at which the cutting blade is set, typically 20° but can be as low as 12° . This enables them to cut end grain. They are also used to trim laminates and for general cleaning up work.





Tri-squares are used to mark and test angles at 90° and check that surfaces are at right angles to each other. They should be regularly checked for accuracy. To do this, place the square against any straight-edged spare timber and mark a line at right angles. Turn the square over and draw another line from the same point. If the tool is accurate the two lines should be on top of each other.





The smoothing plane is the shortest of the bench planes and is used for final finishing or cleaning up, bevelling and chamfering. It can be used to follow the grain and can even be used with one hand.

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The claw hammer is used to drive nails into timber, with the claw available to withdraw bent or unwanted nails. It should be of the best quality to perform safely and efficiently.



Claw hammers come in various weights up to about 570g. Increasingly they have steel shafts and integral heads, as much more leverage can be applied when using the claw without danger of loosening the head.

It is best to place a spare scrap of timber or hardboard under the claw as packing to protect the surface of the timber when using it to extract nails.

You can also get additional leverage and withdraw a nail straighter, thus causing less damage to the timber, by using thicker packing under the claw.



Cross-cut saws, as the name implies, are used for cutting across the grain, but can also be used for short rips on light timber.

Typically they are 650mm long with 5-8 teeth per 25 mm. The teeth are bevelled (i.e. filed at an angle) across the saw to produce a knife-like edge on the forward and back edge of the tooth.

The angle of this bevel is between 60° and 75° . The cutting edge should ideally be at 45° to the work when sawing across the grain.



Carpenter's mallets have a much larger head than hammers, and are usually made from hardwood (beech is the commonest) with an ash or hickory shaft. The head can be rectangular in section or round.



They are primarily for use with chisels but also for a variety of 'persuading' purposes, such as knocking components or material into place without causing damage.

There are also soft-faced mallets with either a rubber head or tightly rolled rawhide, glued and often loaded with lead. These are useful for material that wooden mallets may damage.





The tenon saw has teeth in a similar pattern to a cross cut saw but with 12–14 teeth per 25mm. It is used for cutting joints and general bench work.

There is a reinforcing strip along the top of the blade made from steel or brass to keep the saw rigid. Tenon saws are typically 300mm to 350mm long.

Saws with a reinforced back generally come under the heading of “backed saws”.





Bevelled-edge chisels come in a variety of sizes. The two long edges are bevelled, which makes them lighter but not as strong as a chisel which is not bevelled. Hence, they should not be used with a mallet, except for very light taps.

They are used for short paring and other fine work. The bevelled edge also helps when cleaning out corners that are less than 90° .





The sliding bevel is an adjustable tri-square, used for marking and testing angles other than 90° . When in use, the blade is set at the required angle then locked by either a thumbscrew or set screw in the stock.



PLANES TERMINOLOGY

