THE PRO'S OPINION

THE RIGHT SAW FOR THE JOB



Jannik Olsen, carpenter

SIZE AND NUMBER OF TEETH

Choosing a saw is all about selecting the right size and type of saw teeth for a particular job. Tooth size is measured in the number of complete teeth to the inch (tpi). Larger and fewer teeth give a faster cut, whereas a greater number of smaller teeth provide a finer finish.

The table below is a quick guide to show which size of saw teeth best suits different requirements, plus the number of teeth and suggested applications is listed in the features shown with all the saws on the following pages.

SAW APPLICATION	SAW TEETH REQUIRED
Construction Work Construction carpentry, joists, stud framing, chipboard	**Large Teeth** 7 teeth per inch
Finish Work Architraves and mouldings panelling, flooring, PVC	**Small Teeth** 11 teeth per inch
Specialist Work Flooring, PVC pipes and mouldings, plasterboard and drywall panels, cellular concrete	**Specially Designed Saws** With different numbers and types of teeth to suit specific tasksh

THE PRO'S OPINION

MAKE YOUR SAWS WORK HARDER



Peter Karlsson, construction worker

MARK THE CUT WITH A KNIFE

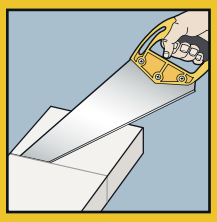
For a tear free cut use a knife to mark the line all round the wood rather than a pencil.

CUT WITH FINISHED SURFACE UPWARDS

When fitting one component to another, such as a door into a frame, minimise the risk of error by making a pencil mark on the back of the tape blade to indicate the actual dimension, then transfer it to the door. The pencil mark can easily be removed with a damp cloth.

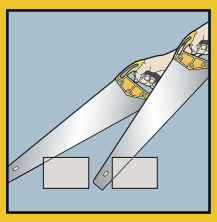
CUT ON THE WASTE SIDE OF THE LINE

For a precise fit it is a good idea to leave a little additional waste that you can plane off afterwards if necessary.



STARTING THE CUT

Start the cut at the edge furthest from you with the saw cutting edge angled at approximately 30° to the work surface. Use the thumbnail of the hand not holding the saw, or a scrap piece of wood, position the cutting edge to the waste side of the line. The first stroke should be a light pull to establish the cutting line (kerf).



SAWING OFF A THIN PIECE OF WOODE

To help prevent the thin piece splitting off you can clamp a piece of scrap to the far edge extending beyond the piece to be cut, which will support the saw blade and ensure a clean cut.

SAWING TECHNIQUE

As a general rule the coarser the teeth the higher the angle you should saw at, for a 7 teeth per inch hand saw start at 30° and raise angle to between 45° and 60°. For an 11 teeth per inch hand saw start the cut at 30° and raise angle to 45°. When using a back or tenon saw start at less than 20° and as the kerf extends to the full width of the wood lower the blade until almost horizontal. To help keep the saw on line hold the handle with three fingers and thumb with the index finger resting on the outside face of the handle to provide alignment. Maintain a firm but relaxed grip on the handle. Keep wrist, elbow and shoulder in line with the saw blade and the marked line. You should also align your head and eye to be in line with the cut. Use the full length of the saw in steady unhurried strokes. The rate of cut can be increased by dropping the handle as the blade is about halfway through the stroke, lift the handle for the draw stroke.

CORRECTING ALIGNMENT

If the saw starts to move off line slow down, make slight changes to your position and progressively steer the cutting edge back into alignment. Make regular checks to ensure that the cut is progressing square to the top surface.



FINISHING THE CUT

As you near the completion of the cut the sound made by the saw will change to indicate that it is time for you to support the piece that is being cut off. If you leave this too long the weight will cause it to break off damaging the work.

THE PRO'S OPINION

MAKE YOUR HACKSAWS WORK HARDER



Jannik Olsen, carpenter

PREPARATION

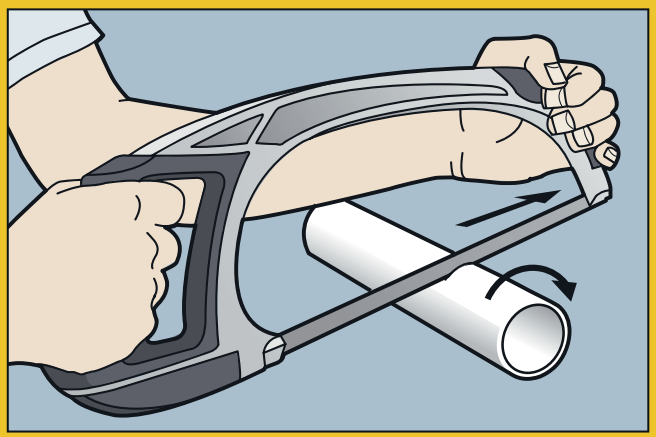
Clamp the workpiece securely in an engineer's vice. When cutting existing pipe work, ensure that water or gas has been safely turned off. When cutting thin sheet metal it is a good idea to sandwich it between two pieces of plywood for support. If the blade snaps in the middle of a cut restart the cut at the far edge to prevent the slightly thicker blade from jamming in the cut.

THE RIGHT BLADE AND TENSION

Clamp the workpiece securely in an engineer's vice. When cutting existing pipe work, ensure that water or gas has been safely turned off. When cutting thin sheet metal it is a good idea to sandwich it between two pieces of plywood for support. If the blade snaps in the middle of a cut restart the cut at the far edge to prevent the slightly thicker blade from jamming in the cut.

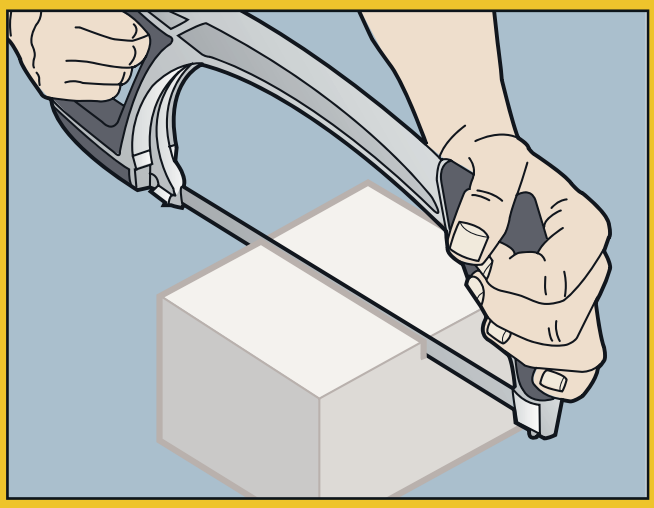
CUTTING METAL TUBING

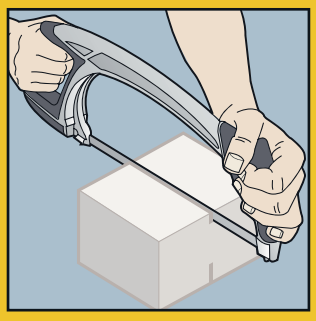
This requires a fine-toothed blade at least 24 TPI. Commence the saw cut until the blade penetrates through the pipe wall. Continue to cut on the nearer wall of the pipe for a smoother vibration free cut, do this by rotating the pipe away from you.

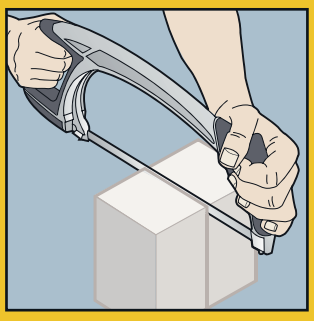


CUTTING THICK ROD

When cutting thick rod or bars mark the cutting line all the way around. Make your first cut to the depth of the blade on the upper surface. Rotate the steel towards you and again cut to the depth of the blade. Continue until the cut is completed.







FINISHING THE CUT

With all types of cut support the waste material as you near the completion of the cut.