

Marking off and centring

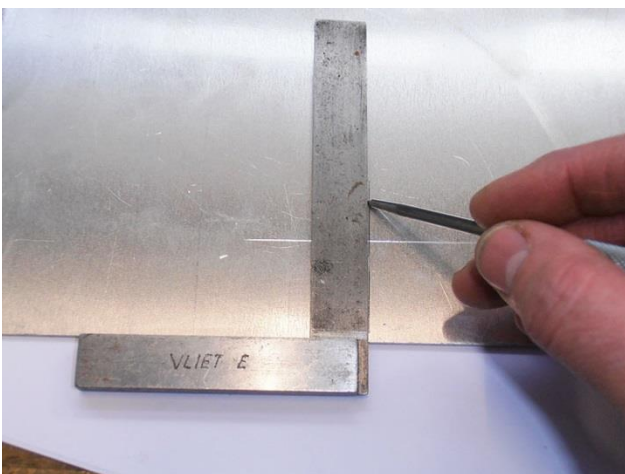
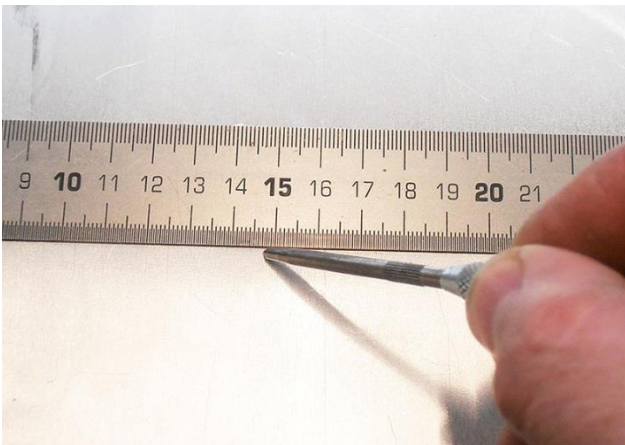
Use a scribe line to mark off the position at which you want to drill or cut. To give a better contrast between the material and the scribe line you can stain the surface of the material, using a permanent marker pen or engineers' marking ink for example.

Scriber

To mark straight lines on your material, you use a scriber: a holder with a hardened tip ground to a 60° point.



To mark the precise position at which a hole needs to be drilled, for example, you draw two lines crosswise. Drill the hole at the point where the two lines cross.



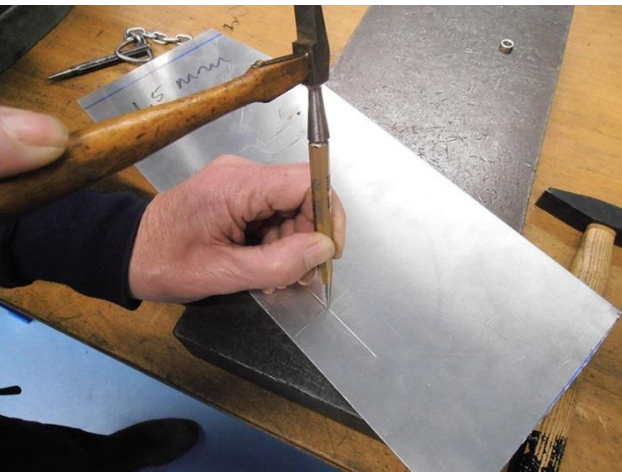
Use the scriber for marking off only.

Centre punch

A centre punch is a hardened steel rod, one end of which is ground to a 30° point.



A small blow is given to the centre punch using a small hammer at the intersection of the two lines to create a small indent in the material. (The emphasis here is on 'small' to avoid buckling the sheet.) Centring is best done on a stable, non-springy base (e.g. a thick, flat piece of steel). This is where you want the drill to cut into the material. The small indent will prevent the rotating drill from wandering, and the hole will be drilled in the intended position.



Height gauge scriber and marking-off table

To accurately scribe parallel lines, you need a marking-off table and adjustable height gauge scribers, sometimes in combination with other tools.

Surface plate

A surface plate is a very heavy plate or cast-steel plate with a perfectly flat surface.

The marking-off table is only used for marking off – not for anything else.

No other tools are permitted on the marking-off table – any damage will mean that the surface is no longer completely flat. Centring is done on a different piece of steel.



Height gauge scriber

A height gauge scriber is essentially a scriber mounted on a vertical height guide with a vernier graduation, and which has a flat, smooth underside standing on the surface plate.



At the zero point, the scriber is flat on the surface plate with the scriber reading zero on the scale. Set the scriber to the desired height using the vernier graduation, and scribe a horizontal line on the material with the scriber. Then do the same for the vertical line (in which case the material needs to be turned 90°).



When marking off on the surface plate, a right-angled support may be used. This means sheet material, for example, can also be marked off on the surface plate.

