

Ⓑ DAY 1:

The first step is to measure a rectangular shape out of a 6mm thick mild steel stock. The rectangle must measure 100 x 55. A set square, ^{and a} ruler and a scribe are used to measure this out.

To make the identification and cutting easier, a purple dye can be applied to the surface. ^{Always mark the waste steel so you cut on the right side of that line.} Once marked out, the steel stock can be cut to size.

This can be done using a power tool such as a drop saw or if such a tool is unavailable, a hacksaw may be an alternative option. Once the block has been cut to size, any burrs can be filed and the dimensions can be checked using a vernier.

DAY 2:

The next step would be to drill the hole 12mm in diameter. To do this you need to measure 20mm from the top and 20mm from the left side and make a mark using a hole punch. The hole can then be drilled using a drill press. It is

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important to start with a smaller drill bit first, and then change to the actual size as the smaller drill bit will act as a guide for the larger one. When drilling steel, it is important to wear safety glasses as well as oiling the drill bit and not applying too much pressure on the drill bit which will cause it to snap. Once the hole has been drilled you can move on to the next step.

DAY 3:

The next step is to mark out for the cylinder type hole. To do this you need to measure 50mm from the top and make a mark with the scribe. You also need to mark 10mm from the bottom.

Then you need to measure in 20mm from the left edge and join the marks.

They then need to be punched using a hole punch. Once complete, the holes can be drilled using the same procedure outlined above. Once complete lines need to be drawn vertically at 15mm and 25mm from the left edge

You may ask for an extra Writing Booklet if you need more space.

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So they meet up with the circles. These can then be cut out using a saw or jigsaw like power tool to remove the cylinder shape. The burrs can then be removed.

DAY 4:

The next step is to round the top right edge off. This can be marked by either using a compass or an object that is 20mm in diameter. The 20mm round object should be lined up in the ~~corner~~ corner and a line drawn with the scribe. This can be then simply filed off. ~~or~~ Or, the majority of the steel can be removed using a power tool and appropriate PPE and the remaining burrs and can be removed using a file.

DAY 5:

The final stage is to clean the bracket using steel wool and ~~then~~ clean the area you have been working in. The bracket grafted from 6mm mild steel stock is now complete.