







Hand thread cutting

Te whakakōaka ā-ringa

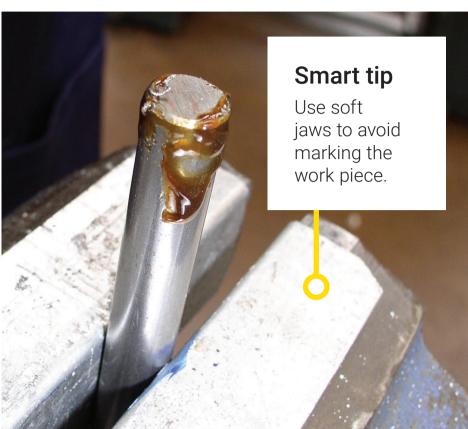


Using a micrometer or vernier calipers, select the correct size bar for the thread to be cut e.g;

Ø6 = M6

 $\emptyset 8 = M8$

 $\emptyset 10 = M10$



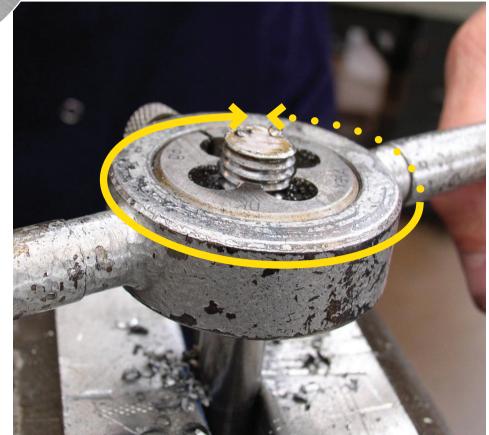
Chamfer the top of the bar, this aids starting the cutting process.

Lubricate using ROCOL RTD cutting compound (or similar) to ease cutting and reduce wear on the tool.



Typically it takes **two** cuts to form an external thread, a rough followed by a finishing cut. To start the first cut, hold the bar vertical in a vice with the chamfered end up.

Hold the stock (handles) horizontal i.e. parallel to the ground press firmly down and turn clockwise until you can feel the die start to cut.

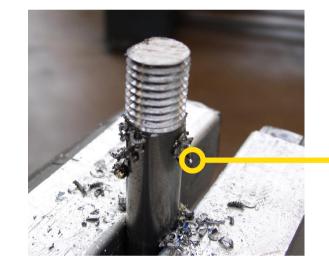


Once the cut is started, cut the thread by turning the stock clockwise 3/4 of a turn. Then turn in the opposite direction (anti-clockwise) 1/4 of a turn to break the 'chip' off.

If the chip isn't broken, the threads will become ragged or stripped. Once the rough cut is to the correct depth, remove the rough die anti-clockwise. Fit the finishing die onto the stock and perform the finishing cut.

WARNING KIA TŪPATO

Be careful of sharp edges. Kia tūpato ki ngā tapa koi.



The last step is to clean the swarf off the threads with a wire brush. Use a file to take the sharp edges off the head and form a clean start for the thread.

Drilling and drill press

Te wiri me te perehi wiri



- Always use marking-out dye, a rule and then centre punch your work before you drill it.
- The accuracy of the finished job is worth the extra effort.
- Select the speed of the drill, using the type of material and size of the drill as a guide.



Ensure there is at least 25 mm of shank in the chuck and it is firmly tightened.

Smart tipBefore drilling use markingout dye, a rule and then

centre-punch your work piece.



A drill press is preferable to a hand drill when the location and orientation of the hole must be

clamps. Tall work can be supported directly on the base with the table moved out of the way.

accurately controlled. A drill press is composed of a base that supports a column, the column in

turn supports a work table and the drill head. Work can be fixed to the table with a vice or hold down

As the Hand Feed Lever is turned the chuck is moved up or down.



When ready, pull down steadily and lightly on the feed handle.

WARNING KIA TŪPATO

Keep your fingers, clothes and hair clear. Kia tika te mahi kia wātea ō matimati, kākahu, makawe hoki.