

COMMON MARKING OUT TOOLS

WOOD – METAL-PLASTICS

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COMMON MARKING OUT TOOLS WOOD – METAL - PLASTICS

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THE MARKING KNIFE

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A woodworker's marking knife, is one of the first tools that woodworkers are taught to use, when beginning their career. It is used to precisely mark lines, into the surface of wood and acts as a guide for a chisel or saw. For example, when marking out finger joints, dovetail joints or marking a length of wood to be cut to size.

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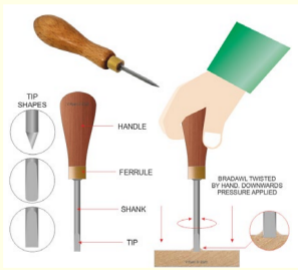


THE BRADAWL

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The bradawl has a specific role / purpose. It is used to create a small, shallow 'hole' in the surface of wood, that is to be drilled (pilot hole). It is also ideal for creating the starting point for a woodscrew or a nail.

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WOODWORKERS TRY SQUARE

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The woodworkers try-square has two main parts - the stock and the blade. The blade is made from hardened and tempered steel. The stock is usually made from rosewood. A brass face is added to the stock to ensure a straight edge.

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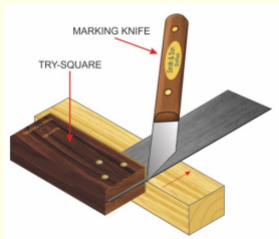


USING THE WOODWORKERS TRY SQUARE

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The try-square is pushed against the straight edge of a piece of wood and a marking knife is then used to mark a straight line across the material. The line is continued all the way round the wood (all four sides are marked).

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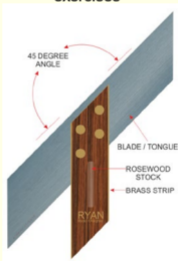


THE MITRE SQUARE

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A mitre square is a very useful tool, when marking out or checking 45 degree angles. It has a set angle, in the same way as a set square has a set 90 degree angle. There is NO adjustment to the angle, which simplifies its use and eliminates errors.

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USING THE MITRE SQUARE

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This tool is extremely useful when marking out 'mitre' wood working joints. The example below shows a mitre square being used to mark out a mitre corner halving joint.

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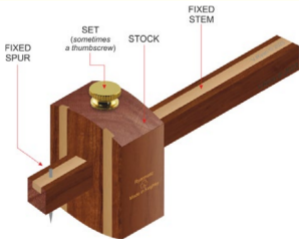


THE MARKING GAUGE

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A marking gauge is used to mark a line parallel to a straight edge. The stem and stock are made from beech and the thumbscrew from clear yellow plastic. The marking gauge is an extremely important tool for marking parallel lines and preparing for cutting joints.

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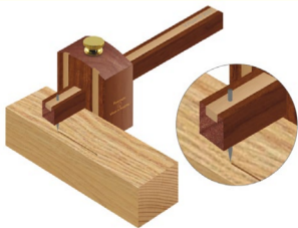


USING THE MARKING GAUGE

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The stock of the marking gauge is pressed firmly against a straight edge of the wood and pushed carefully along it. A little pressure is applied to the spur, too much pressure and the spur digs into the wood marking an ugly line on the surface.

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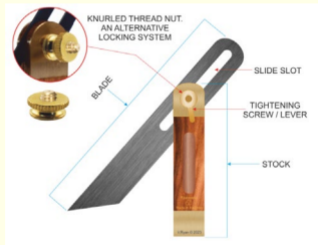


THE SLIDING BEVEL

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The sliding bevel is composed of two parts, the stock and the blade. The blade can be adjusted to a variety of angles and locked in position. This is useful when a line has to be marked at an angle on wood.

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USING A SLIDING BEVEL

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The stock of the sliding bevel is held firmly against the wood and the lock is loosened, allowing the angle of the blade to be altered. The angle is 'locked' in position and marking out with a marking knife / pencil can take place.

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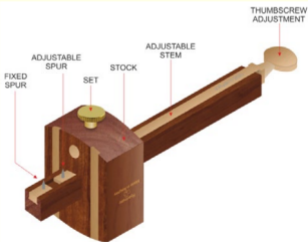


THE MORTISE GAUGE

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The mortise gauge is used to mark wood, so that a mortise joint can be cut into it. It must be set to the size of mortise chisel being used to cut the joint. The mortise chisel is used to remove the waste wood.

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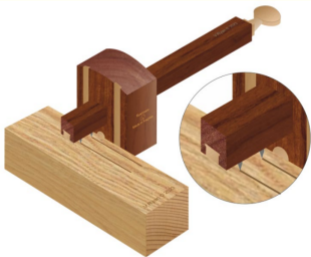


USING THE MORTISE GAUGE

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The distance between the fixed spur and the adjustable spur is set so that it matches the width of the mortise chisel. The width of the mortise chisel should match the width of the mortise to be cut in the wood.

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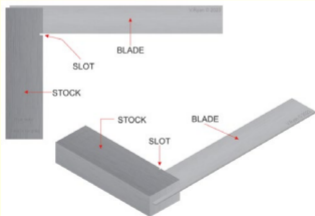


THE ENGINEERS TRY SQUARE

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The engineers try-square is composed of two parts, the stock and the blade. They are usually made from bright mild steel with the blade being hardened and tempered so that it resists damage. It is normally used during engineering / metalworking projects

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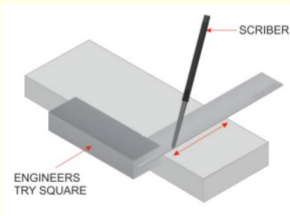


USING THE ENGINEERS TRY SQUARE

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The try square is pushed against a straight side of the material (eg. steel). An engineers scribe is then used to scratch a line onto the surface of the metal. Engineers blue (a dye/ink marking out fluid) is wiped onto the surface first so that the scratched line can be seen easily.

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ENGINEER'S BLUE - MARKING OUT FLUID

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Engineer's Blue is a spirit based marking out fluid, used on metal surfaces. It is brushed or wiped on a surface and dries quickly. Marking out can be seen clearly, on blued surfaces.

Engineers blue can be removed by wiping methylated spirits, over the blued surface.

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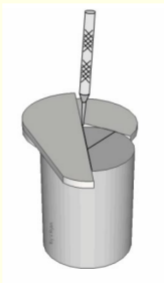


THE CENTRE SQUARE

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When placed up against a round piece of material such as a round section of steel, the centre square can be used to find its centre accurately.

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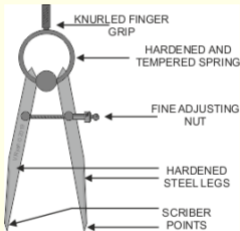


ENGINEERS SPRING DIVIDERS

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Spring dividers are a general marking out tool, for arcs, circles and radii. This tool used for accurate marking and has a fine adjusting nut to ensure precise measuring / marking out. The adjusting nut firmly holds the scriber point at a set distance.

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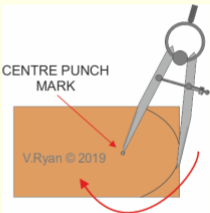


ENGINEERS SPRING DIVIDERS

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The point of rotation of the spring dividers, is punched with a 'centre punch', ensuring that the scriber point does not slip out of position. The dividers are then rotated, scribing the arc / circle. This should be done lightly at first and then with a little more weight. Sometimes rotating the sheet metal, whilst holding the dividers in position, works really well

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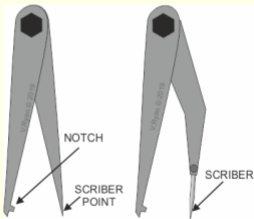


FIRM ODD-LEG CALIPERS (JENNY CALIPERS)

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The two calipers seen here are similar. They are manufactured from tool steel and each scribe / scribe point, has been hardened and tempered. They are for marking out the surface of sheet metal and for checking parallel edges.

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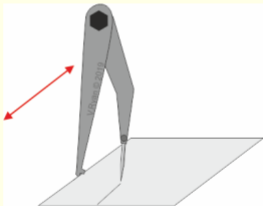
FIRM ODD-LEG CALIPERS (JENNY CALIPERS)

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They are easy to use. First set the distance required, using a mm scale on a steel rule.

The transfer it to the metal surface, by ensuring the notch is lodged against one edge of the metal, then simply 'drag' the scribe, across the surface.

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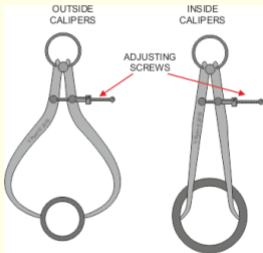


OUTSIDE AND INSIDE CALIPERS

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These inside and outside calipers, each have a spring and an adjusting screw. The adjusting screws allows for fine adjustment, which means they can be set more accurately than a 'firm' type caliper, which is simpler in design.

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TRAMMELS FOR ENGINEERING

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Trammels are available in a range of sizes and allow for the scribing of large arcs, beyond the capacity of spring dividers. They are also ideal of transferring measurements.

The knurled grips can be loosened and tightened, allowing them to slide along the round section bar. This means that a distance can be set quickly and the fine adjuster used for a more accurate measurement.

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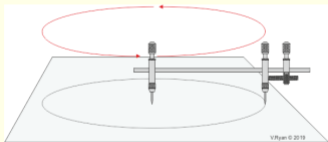


TRAMMELS FOR ENGINEERING

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Using a trammel to scribe an arc on the surface of sheet metal, is shown below. A centre punch 'indentation', is at the centre of the arc, ensuring that the trammel does not slip on the surface, during scribing.

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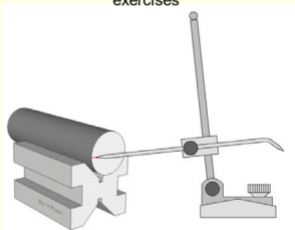


THE SURFACE GAUGE

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A surface gauge is very useful when finding the centre of a piece of round section material. It is normally used to 'scribe' parallel lines. Its base is heavy and this means it is stable when in used. Surface gauges sometimes have magnetic bases and this means they can be locked onto metal surfaces making it easier to use.

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THE CENTRE AND DOT PUNCH

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The **centre punch** is made from mild steel, with the point hardened and tempered. It is normally used to mark the centre of a hole to be drilled, either by hand or on the drilling machine.

The **dot punch** is a lighter and thinner and is used for same type of work. However, it is more accurate as the dot produced is smaller.

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USING THE CENTRE / DOT PUNCH

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Both the centre and dot punches are used in the same way. A ball peen hammer is used to tap the head of the punch and this delivers enough force to the point of the punch to put a small indentation into the surface of the material.

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