The Biscuit Joint

Biscuits are predominantly used in joining sheet goods such as plywood, particle board and medium-density fibreboard. They are sometimes used with solid wood, replacing mortise and tenon joints as they are easier and quicker to make.

They are also used to align pieces of wood when joined edge-to-edge in making wider panels

Advantages

Biscuit joining is particularly useful in the small workshop.

- Construction is fast, because you only have to make one measurement.
- Slight in accuracies in marking out is accommodated in the small amount of lateral slack when assembling
- The glue causes the compressed biscuit to swell which strengthens the joint.
- As biscuits are only 4 mm thick they are suitable to use on thin material.
- Use twin biscuits in thicker material.

Making a biscuit joint

The work pieces are brought together and the user marks the location for the biscuits. Precise measurement is not required, as the biscuits are hidden when the pieces are assembled, so a quick pencil stroke that marks both pieces where they align is all that is required.

The parts are separated and the machine is used to cut the slots in each piece. The machine has reference marks on the center line of the blade for easy alignment to the marks on the materials being joined.

It is important to use the same face when cutting the slots, so the boards are perfectly flush

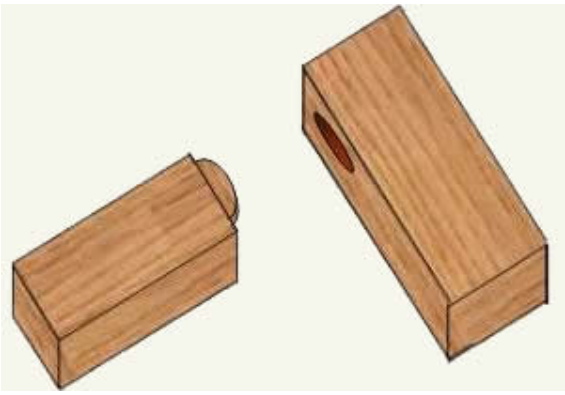
The body of the machine with the blade is spring loaded and in the normal position the blade is retracted. The operator aligns the machine and uses a firm pressure to push the body forward against the base plate to make the cut. The waste material is blown out of the slot on the right of the base plate.

Because the slots are slightly longer than the biscuits, it is still possible to slide the panels sideways after the joint is assembled (before the glue sets). This fact makes the biscuit joiner easy to use, because it does not require extreme accuracy or jigs to achieve perfect joints.

The depth of the cut can be altered by an adjustable stop, the smaller base can be rotated through 90 deg. and accessories are provided for altering the offset of the base to the blade (for use with thicker or thinner materials as required). Some models allow slots to be cut at angles other than 90 deg. to the joining face, for example 45 deg., which greatly speeds up the assembly of things like cabinets.

Using a biscuit joint to make:

a) Framing joint
b) Carcass / Box joint
c) Widening joint



(a) Framing Joint

(b) Carcass Joint

(c) Widening Joint