

Manufacturing



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Components pages

More about components from the BBC bitesize website.

[View the components pages >>](#)

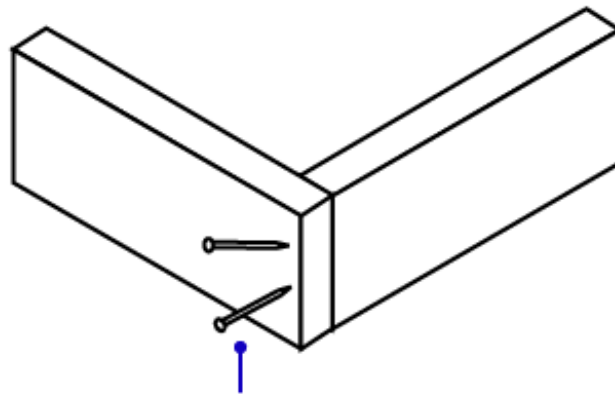
Joining timber using Components



In industry wood joints are being substituted for new quicker and cheaper methods of fixing wood together. The commercial move towards flat pack furniture has encouraged the use of these components.

Nails

Nails are used to improve very weak joints but they can rust within the timber. Nails on wood joints are often used with glue to improve the joints strength. Nails are often used for quick fix's such as fixing backs of cupboards and general building and DIY work. Nails and pins are usually made of mild steel and come in many types e.g. – panel pins, veneer pins, oval nails and round nails. Putting nails in at an angle or dovetailing the nails makes a stronger joint. Nails are useful for fixing woods to woods.



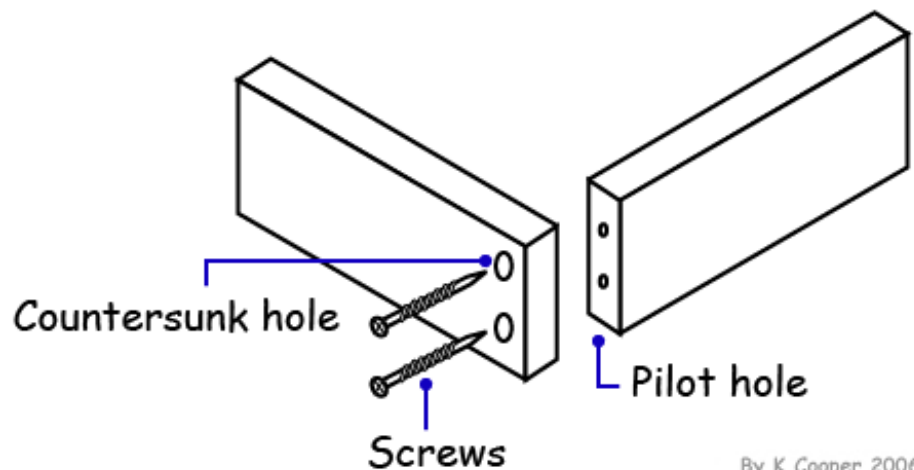
Dovetailed nails

By K.Cooper 2006

The nails above are put in on an angle (dovetailing) to make the joint stronger.

Screws

Screws are often used with glue to improve joints strength. A screw is at its strongest when used across the grain. There are many types of screws but the most popular are the cross-head screws as they are easier to fix in by hand or using an electric screwdriver. Screws can come with flat heads or cross heads. Flat headed screws if counter sunk will run flush with the wood. This means that the screw will be neat and not obvious to see. Screws are useful for fixing woods to woods or metal or plastic to woods.



Countersunk hole

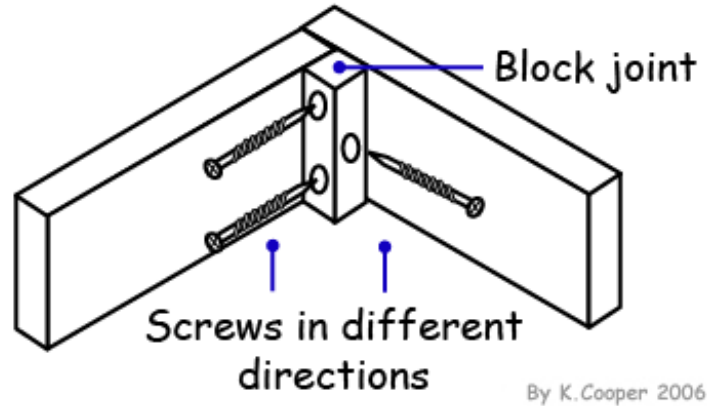
Pilot hole

Screws

By K.Cooper 2006

Knock down fittings

Knock down (KD) fittings are mainly used within flat pack furniture or for assembly by the user. They are used within kitchen units or self-assembly furniture. Knock down (KD) fittings are often plastic fittings which can be joined together with one screw or bolt. A simple knock down fitting is a 'block joint'. Block joints are simply plastic blocks that take screws in different directions.



Quiz time!

Mr DT says 'Read the text above and then answer these questions below'. Write your answers on a sheet of paper, don't forget to write your name on the sheet!:-

- 1.) In industry why have wood joints been replaced with components?
- 2.) What problems can nails have within timber?
- 3.) What should you do to make a screw run flush with the wood?
- 4.) What is the strongest way to put a nail into a joint and what is this method called?
- 5.) When is a screw at its strongest within a wood joint?
- 6.) Name two types of screws?
- 7.) Screws are useful for fixing what to what?
- 8.) What are knock down fittings?
- 9.) Where are knock down fittings mainly used?
- 10.) Name a type of knock down fitting?



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