

APPLICATION TIPS

Screwdriving and drilling in wood

Procedure:

How to ensure nice, strong screw joints:

- 1** Use a wood drill bit with a centring tip. You can use a twist drill bit for normal holes with small to medium diameter. An auger bit is recommended for drilling deep holes with diameter of 8–10 mm or more. The Forstner drill bit is suitable for drilling shallow holes of up to 30 mm diameter. The holesaw is ideal for drilling through-holes with 30 mm diameter or more.
- 2** Always use wood screws. They have a high-incline thread and a pronounced tip. The shank is cylindrical or conical.
- 3** (Cordless) screwdrivers and (cordless) drill/drivers are ideal for screwdriving. If you only need to drive screws occasionally, you can also use a drill.
- 4** Make sure that the bit you use in your tool fits the screw perfectly. Otherwise it might slip out of the screw during screwdriving. “Torx” screws offer the best grip, “cross head” screws (technical term: Pozidriv or Philips) are generally better suited than slotted screws.
- 5** You will achieve the best result by drilling along the grain of the wood. Set the right speed. If the speed is too low, the resulting hole will be untidy. If the speed is too high, there is a risk of the workpiece overheating and burn marks occurring. Place the drill bit cleanly against the workpiece.
- 6** Fix the workpiece using clamps to prevent it from slipping during drilling. Place a scrap panel underneath the workpiece, so that you can drill into the scrap panel without damaging your worktop. This also prevents fibres from being torn out when you drill through the workpiece.
- 7** To connect two pieces of wood with screws, always pre-drill a hole that is 0.5 to 1 mm larger than the screw diameter in the piece where you want to insert the screws first. In contrast, you should always pre-drill a hole that is 1 mm smaller in the piece you are screwing into. This ensures that the thread will grip well.
- 8** If you are using flat head screws, countersink the drilled hole deep enough for the head of the screw to disappear into it completely.

Screwdriving and drilling in masonry and concrete

Procedure:

Observe the following tips to avoid drilling holes that are crooked or too large:

- 1** First select the suitable screws and matching fixings for your requirements. Expansion plugs are usually used for wall mounting.
- 2** An impact drill is ideal for drilling in classical masonry. If you want to drill into very hard concrete, you may require a rotary hammer.
- 3** Use an inspection device to ensure that you do not accidentally drill into a cable or pipe. Wear protective glasses when drilling.
- 4** Determine the exact position of the holes and mark them using a pencil. A cross line laser will make this task easier for you.
- 5** Choose a masonry drill bit with the same diameter as the fixing you want to use. Mount the drill bit securely in the centre of the chuck.
- 6** Place the drill bit tip perpendicular to the wall. If you do not exactly know the condition of the wall material, start drilling without impact and only switch the impact function on when there is resistance. Do not apply pressure to the machine until the drill bit has gripped firmly in the material.
- 7** Drill the hole so that it is deep enough for both the fixing and the screw to fit into fully. Use a depth stop if necessary. Leave the drill bit running at low speed when you pull it out.
- 8** Remove the drilling dust from the hole. This will ensure that the fixing has better grip.
- 9** (Cordless) screwdrivers and (cordless) drill/drivers are ideal for screwdriving. If you only need to drive screws occasionally, you can also use a drill.
- 10** Make sure that the bit you use in your tool fits the screw perfectly. Otherwise it might slip out of the screw during screwdriving. "Torx" screws offer the best grip, "cross head" screws (technical term: Pozidriv or Philips) are generally better suited than slotted screws.