

Drills and drill bits

Pillar drill

A pillar or pedestal drill machine is fixed to allow more precise drilling. The drill consists of pillar that's held in position by the drill bed which is bolted to the floor. The pillar also has the drill table which can move up and down and holds and supports the material to be drilled or it support a machine vice.



Cordless power drill

Modern cordless power drills save time and energy when fitting screws. Their handheld and lightweight nature means that they are easy and comfortable to use. They come in various shapes and sizes, can have a range interchangeable bits or even other tool attachments.

Drill bits

Twist drills - Probably the most common drilling tools used with either a hand or electric drill. The front edges cut the material and the spirals along the length remove the debris from the hole and tend to keep the bit straight.

Countersink bits - Although not a true 'drill', it is used in a power or hand drill to form the conical recess for the heads of countersunk screws. These bits tend to be designed for use on soft materials such as timber and plastics, not metals.

Forstner bits - Used to form holes with a flat bottom, the central point aiding high accuracy. Best used in a pillar drill for safety and for ease of use.

Hole saws - Used for cutting large, fixed, diameter holes in wood or plastic. Best used in a pillar drill at low speed as the blade saws it's way through the material.

Step drill bit - Allows drilling holes of multiple sizes with same drill bit; can be used to clean away waste material in holes. Particularly useful when drilling thin sheets of plastic to prevent it from breaking.



Safety rules

All drills should be used with care and safety in mind. The following safety rules should be adhered to at all times when using drills:

- Suitable eye protection worn
- Guard in place (pillar drill)
- Drill bit secure in chuck
- Work-piece securely held
- Long hair and loose clothing tucked away