

Speed Selection Chart				
Gear Number	No load speed	max. dia. steel	max. dia. alloy	max. dia. wood
1st speed	400 rpm	24mm	28mm	50mm
2nd speed	920 rpm	13mm	18mm	35mm

## BASIC TECHNIQUES

**Plug the machine into its power supply and switch the supply ON.**

**To start the drill, squeeze in the ON/OFF trigger, to stop simply release the trigger.** For safety reasons you are advised not to use the trigger lock.

**Hold the tool in both hands and adopt a stable stance that gives a good view of the work** while keeping you clear of the bit.

**Do not work in areas where you are forced to stand on loose debris or on a slippery uneven surface.**

If possible, **drape the tool's flex over one shoulder to keep it clear of the bit, but make sure there is still enough slack** so you are not restricted in movement.

**Start drilling slowly** and carefully, then, once the hole is established, **concentrate on drilling in a straight line** – with the drill at right angles to the surface, where appropriate.

**Apply just enough pressure to achieve a steady rate of penetration** – too much or too little pressure will overheat and/or blunt the drill bit and could damage the electric motor.

**When drilling into hard material such as steel girders, withdraw the bit from time to time,** keeping the drill running, in order **to cool the bit** and the drill motor. This will also clear waste from the hole.

When drilling large diameter holes, drill a small pilot hole first then drill the hole again with progressively larger bits, until the correct size is achieved.

## EQUIPMENT CARE

**Never push the drill beyond its natural capabilities.** If it won't do the job you want with reasonable ease, change it for a more powerful model.

**Never let the drill bit or motor over-heat.** Stop work at frequent intervals and run the drill for a minute or so, just holding it in your hands. The air drawn in and around it will cool everything down and prevent damage.

**Regularly check that the air vents in the drill body are clear.** If these become blocked with dust, clean them

out using a soft brush before continuing, taking care not to push dirt into the drill body.

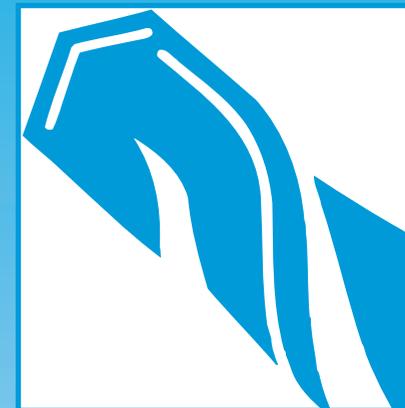
**Avoid over-tightening the drill chuck** when securing a bit, and **never attempt to fit a bit larger than the recommended chuck capacity.**

**When not in use, store the equipment somewhere clean, dry and safe** from thieves.

## FINISHING OFF

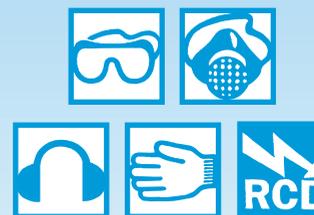
**Remove all drill bits and clean up** the drill ready for return.

**Check that the drill still has its ejector pin, neatly coil the flex and place in the carrying case ready for return to your local HSS Hire Shop.**



# 2 & 4 Speed Morse Taper Drills

**Suitable for drilling into all types of metal and timber.**



## GENERAL SAFETY

For advice on the safety and suitability of this equipment contact your local HSS Hire Shop.

Keep children, animals and bystanders away from the work area.

Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.

This equipment should only be used by a competent person who has read and understood these instructions.



**Safety Goggles MUST be worn by everyone in the work area.**



Some materials being drilled contain substances which, when inhaled, can be harmful to health. A suitable mask must be worn when using this equipment.



This equipment generates potentially harmful noise levels. To comply with health and safety at work regulations, ear defenders must be worn by everyone in the vicinity.



Wear practical, protective clothing, gloves and footwear. Avoid loose garments and jewellery that could catch in moving parts, tie back long hair.

Never use the equipment if highly flammable vapours – petrol or paint thinner fumes for example – are present.

Always switch OFF and unplug the equipment when not in use.

Take special care when changing drill bits – they are sharp.

Always unplug the tool before making adjustments to it. Check that it is switched OFF and that you have removed the chuck key before plugging it back in.

Having switched OFF, always wait for the drill bit to come to rest before putting the tool down.

Make sure you know how to switch this machine OFF before you switch it ON, in case you get into difficulty.

Check the condition of the equipment before use. If it shows signs of damage or excessive wear, return it to your local HSS Hire Shop.

Think twice before locking the ON/OFF trigger in the ON position using any trigger lock button fitted.

Only change the gear/speed when the machine has stopped.

Watch your footing. Take special care if working other than on firm, level ground. Above ground-level, always work from a stable, purpose-made work platform such as a step-up or trestle.

## ELECTRICAL SAFETY

Most HSS Morse taper drills plug into a standard 13amp power socket. However, 110V models (with a round yellow plug) must be provided with a suitable 110V generated supply, or powered from the mains via a suitable 110V transformer.

If the equipment fails, or if its flex or plug gets damaged, return it. Never try to repair it yourself.

Keep flexes out of harm's way, and clear of moving parts.

Extension leads should be fully unwound and loosely coiled, away from the equipment. Never run them through water, over sharp edges or where they could trip someone.

Keep the equipment dry, using electrical equipment in very damp or wet conditions can be dangerous.



To reduce the risk of electric shock, use a suitable RCD (Residual Current-Operated Device) available from your local HSS Hire Shop, or power the equipment from a mains circuit with a built-in RCD.

Never carry or pull the equipment by its flex.

Ensure the equipment and power socket are switched OFF before plugging into the power supply.

## GETTING STARTED

The Morse Taper Drill utilises a MK2 Morse taper chuck for direct connection to the bit. Standard bits can be used with this machine, provided a 3 jaw chuck adaptor is fitted.

NOTE: The side handle MUST be fitted and used, if the bit jams during drilling the side handle will help restrain the machine. Without the handle fitted you risk breaking your wrist.

Fit the drill with the right bit for the job....

### Drill Bits

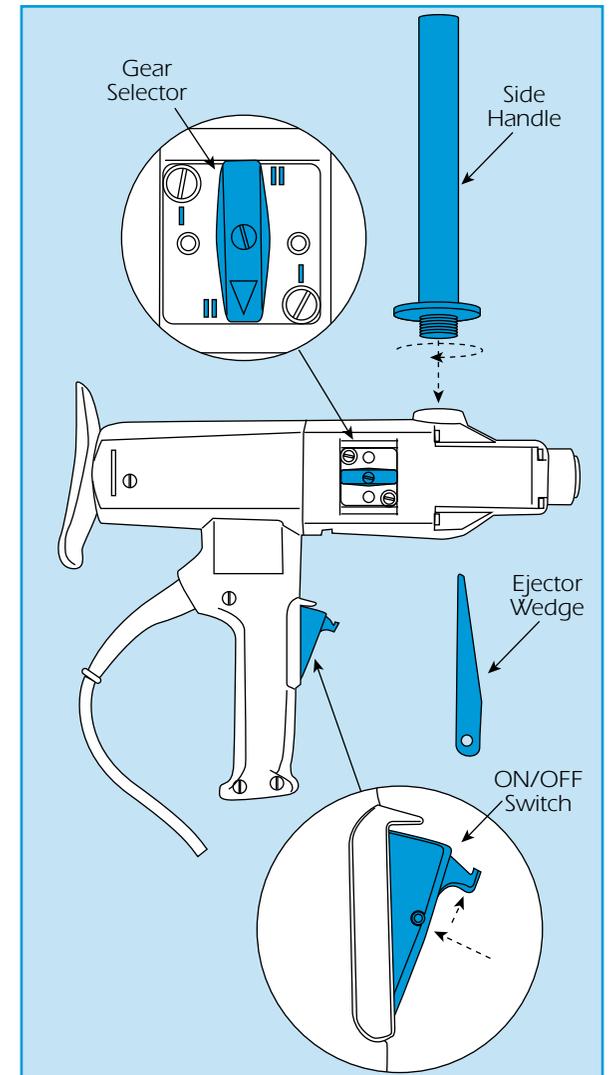
**HSS (high speed steel).** Used mainly for drilling holes in steel but also used for wood and plastics.

**Flat (spade) bits.** Designed for use in timber products.

If a 3 jaw adaptor is fitted, open and close the chuck with the chuck key provided. Once in the chuck, tighten the jaws using all 3 key positions.

For direct entry Morse taper bits, ensure the Morse end of the bit is clean, dry and free from rust and oil. Insert the bit into the chuck (MK 2 bits fit straight in but MK1 Morse bits will require an adaptor)

To remove the Morse bit or adaptor, switch OFF and unplug the drill. Insert the ejector wedge point



first into the opening (if the opening is obstructed, turn the bit until the slot lines up). Push the ejector wedge in until the bit or adaptor becomes loose.

There is no depth stop fitted to this machine, but this may be set by placing a piece of insulation tape on the bit.

The machine offers a choice of settings, select the correct speed for the job. As a rule of thumb, the harder the material and /or the larger the hole, the slower the drill speed.

On most models, there is a lever type speed selection switch on the side or top of the tool body. To select the speed (see chart) ensure the drill is switched OFF, then turn the lever to the required setting.