#### DRILLING

For standard drilling (without dust removal fitted) use slotted core bits.

NOTE: Dust is released in all directions. Drilling without a dust removal system, especially overhead drilling, is very unpleasant and optimum performance is not achieved. Overhead drilling without use of dust removal system is therefore not recommended. For dry coring it is recommended that the dust removal attachment and a suitable vacuum cleaner are always used.

### **DANGER!**

HOLD POWER TOOL BY INSULATED GRIPPING SURFACES, WHEN PERFORMING AN OPERATION WHERE THE CUTTING ACCESSORY MAY CONTACT HIDDEN WIRING. CUTTING ACCESSORY CONTACTING A "LIVE" WIRE MAY MAKE EXPOSED METAL PARTS OF THE POWER TOOL "LIVE" AND COULD GIVE THE OPERATOR AN ELECTRIC SHOCK.

### **CAUTION!**

Always use the side handle and hold the machine with both hands. The user must be prepared for sudden sticking and stalling of the cutting tool.

## WARNING

# Make sure that the supply cord does not come into contact with rotating parts.

Before drilling make sure the side handle is secured in the desired position. Fit the hole-starting aid when required. Plug the supply cord into the power outlet. Position the machine at the point where the hole is to be drilled (hole center). Press the on / off switch on the power tool to start drilling. When beginning drilling, apply only light pressure until the core bit has centered itself and then increase the pressure. If the hole-starting aid was fitted drill to a depth of 3-5 mm to form a guide kerf. Release the on / off switch and then wait until the core bit has stopped rotating. Remove the hole starting aid from the core bit if it was fitted before. Position the core bit in the guide kerf and then press the on / off switch to continue drilling.

#### DRILLING WITH DUST REMOVAL

When using dust removal **always lead the vacuum hose away to the rear of the machine so that it cannot come into contact with the core bit.** 

To avoid electrostatic effects, **use an anti-static vacuum** cleaner.

# Do not use slotted core bits when working with dust removal system.

Secure the side handle in the desired position. If required fit the hole-starting aid. Plug in the vacuum cleaner and switch it on. Plug the machine's supply cord into the power outlet and switch it on. When beginning drilling, apply only light pressure until the core bit has centered itself and then increase the pressure. If the hole-starting aid was fitted drill to a depth of 3-5 mm to form a guide kerf. Switch the machine off by releasing the on / off switch and then wait until the core bit has stopped rotating.

Remove the hole-starting aid from the core bit if it was fitted before.

Position the core bit (in the guide kerf when the holestarting aid was used) and then press the on / off switch to continue drilling.

Allow the vacuum cleaner to run for a few seconds after switching off the machine in order to ensure that the

remaining dust is removed. Professional dust removal equipment available for from HSS Hire.

# NOISE AND VIBRATION

Typical A-weighted sound power level:	95 dB (A)
Typical A-weighted sound pressure level:	84 dB (A)
Uncertainty for the given sound level	3 dB (A)
Drilling in sand-lime block (dry) with PCM core bit:	6 m/s <sup>2</sup>
Drilling in sand-lime block (dry) with HDM core bit:	4.5 m/s <sup>2</sup>
Uncertainty:	1.5 m/s <sup>2</sup>

# TECHNICAL SPECIFICATIONS

Nominal voltage:	110V
Nominal power:	1570W
Nominal current:	16A
Frequency:	50/60Hz
Nominal no-load speed:	1 <sup>ST</sup> gear: 650 r.p.m. 2 <sup>ND</sup> gear: 1380 r.p.m. (Change gear only when rotation has stopped.)
Dimensions (L×W×H):	446 x 120 x 170 mm
Weight:	approx. 5.1 kg
Protection class:	Protection class II

# EQUIPMENT CARE

**Never push the equipment beyond its design limits.** If it will not do what you want with reasonable ease and speed, assume you have the wrong equipment for the job. Contact HSS Hire for advice.

**Handle the equipment with care.** Avoid dropping it, knocking it, or otherwise exposing it to damage.

Never expose the equipment to dangerous and/or corrosive chemicals.

Remove any dirt adhering to the surface of cutting tools, the chuck and drive spindle and protect their surfaces from corrosion by rubbing them with an oily cloth from time to time.

Never operate the machine when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign objects to enter the interior of the machine. Clean the outside of the machine at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This will negatively affect the electrical safety of the machine. Always keep the grip surfaces of the machine free from oil and grease. Do not use cleaning agents which contain silicone. **Keep the equipment clean** - you will find this less of a chore if you clean it regularly, rather than wait until the end of the hire period.

**Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

When not in use, store the equipment in its toolbox somewhere clean, dry and secure.

# **FINISHING OFF**

Release the on / off switch on the power tool and slowly pull the core bit out of the hole. Switch off the vacuum cleaner if you are using one. Switch OFF power supply before unplugging it.

Remove the core if necessary.

Remove the core bit.

Neatly coiling its flex.

Give the unit a final clean up ready for return, to HSS Hire.



### ... have you been trained

The law requires that personnel using this type of equipment in the workplace must be competent and qualified to do so. Training is available at HSS Training 0845 766 7799

#### ....any comments?

If you have any suggestions to enable us to improve the information within this guide please e-mail your comments or write to the Safety Guide Manager at the address below e-mail: safety@hss.com

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HSS HIRE

309/01



Electrically powered hand held diamond coring machine designed for drilling in masonry with dry cutting diamond core bits and diamond socket cutters



# **GENERAL SAFETY**

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

There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.

The hirer has a responsibility to ensure that all necessary risk assessments have been completed prior to the use of this equipment.

This equipment should only be used by an operator who has been deemed competent to do so by his/her employer.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Anyone with either a temporary or permanent disability, should seek expert advice before using it.

Keep children, animals and bystanders away from the work area. Cordon off a NO GO area using cones and either barriers or tape, available for hire from HSS Hire.

Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs. Safety goggles MUST be worn by everyone in the work area.

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.

Some materials when cut contain substances which, when inhaled, can be harmful to health. A suitable mask must be worn when using this equipment. Respiratory protective equipment is available for hire, contact HSS Hire for details.

Wear practical, protective clothing, gloves and footwear. Avoid loose garments and jewellery that could catch in moving parts, tie back long hair. Ensure the work area is well lit and ventilated, if in doubt,

ask about lighting and ventilation equipment at HSS Hire. **Do not work near flammable gases or liquids, petrol** or paint thinner fumes for example. **Keep combustible materials at a safe distance** – at least 5m.

Do not use the tool to rain or snow and do not use it in damp or wet areas or where there is a risk of fire or explosion.

Also water entering a power tool will increase the risk of electric shock.

Do not work from a ladder or steps.

**Do not operate the tool when it is dirty or wet.** Dust or dampness on the surface of the tool make it more difficult to hold and, under unfavourable conditions, **may lead to electric shocks.** 

Never use the tool if its ventilation slots are blocked. Always use a vice or clamp to secure loose workpieces. Never use this machine to drill into flammable materials (e.g. wood, magnesium) and/or materials that produce electrically-conductive dust.

Keep the grips dry, clean and free from oil and grease. **Make sure you know how to switch this machine OFF before you switch it on** in case you get into difficulty. **Some parts get very hot** so switch off and allow to cool before touching them.

### WARNING

NEVER drill into materials hazardous to the health (e.g. asbestos)

NEVER drill into materials that produce electrically conductive dust (e.g. magnesium)

#### Do not touch rotating parts. Never leave the tool unsupervised.

**Do not try to repair or modify the equipment.** If this tool can't do what you expect or fails to work return to HSS Hire.

# ELECTRICAL SAFETY

The HSS Core Drill plugs into a 110V 16amp power socket, so it must be provided with a suitable 110V generated power supply, or powered from the mains via a suitable 110V transformer.

When using generator, switching other machines or appliances on and off can cause undervoltage and/or overvoltage peaks which could damage the machine. Never operate other machines from the generator/transformer at the same time.

When necessary use only extension cords of a type approved for the application and with conductors of adequate cross section. The power tool may otherwise lose performance and the extension cord may overheat. Check the extension cord at regular intervals. **If shows any signs of damage replace immediately.** 

When the equipment needs extension cord it is recommended to use minimum 2.5  $\rm mm^2\, cross\, section\, cord.$ 

If the equipment fails, or if its power supply cable or plug becomes damaged, return it. Never try to repair it yourself.

Keep cables out of harm's way, and clear of the work area.

**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.

Always remove the plug from the current socket before undertaking any type of intervention on the HSS Core Drill or if it is left unattended or within children or people's reach who may not be conscious of their own actions.

Before removing the plug, switch off the machine.

When unplugging pull the plug, not the supply.

To reduce the risk of electric shock, always use a suitable RCD (Residual Current-Operated Device) available from HSS Hire.

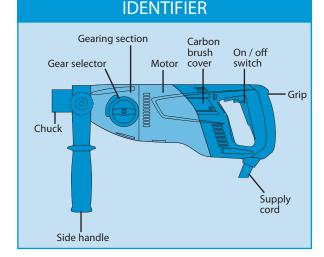
Ensure the machine and power socket are switched OFF before plugging into the power supply.

Never carry or pull the tool by its flex.

**Do not keep your finger on the on / off switch** while carrying the tool when connected to the mains supply. **Avoid body contact with earthed or grounded surfaces**,

such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

**Do not touch the supply cord in the event of it becoming damaged while working.** Disconnect the supply cord plug from the socket.



# **GETTING STARTED**

The HSS Core Drill is designed for drilling in masonry with dry-cutting diamond core bits and diamond socket cutters. This machine is not suitable for drilling in concrete or reinforced concrete.

Never use the HSS Core Drill until you have fully read and understood this User Guide and the machine has been properly set up using the information it contains.

Before using the tool check its condition including the supply cord and extension cord as well as the plug connections. Do not operate the tool if damage is found, if the tool is not complete or if its controls cannot be operated faultlessly. Return the drill to HSS Hire.

Prepare the tool, by **fitting the side handle to desired position**.

**Release the side handle clamping band** by turning the handle counterclockwise. **Pivot the side handle** into the desired position. **Secure the side handle** by turning the grip clockwise.

### FITTING THE DIAMOND CORE BIT

Disconnect the supply cord plug from the power outlet.

### **CAUTION!**

The core bit may become hot during use. There is a risk of burning your hands. WEAR PROTECTIVE GLOVES.

The chuck, the adapter and the cutting tool must be clean and free of dirt and dust.

Open the chuck by turning it in the direction of the open brackets symbol. Push the diamond core bit into the chuck from the front, turning the core bit until the teeth in the chuck engage with the core bit. Close the chuck by turning it in the direction of the closed brackets symbol. Check that the diamond core bit is securely mounted in the chuck by pulling on the core bit and attempting to move it from side to side.

#### FITTING THE DUST REMOVAL ATTACHMENT

#### A dust extractor vacuum is available from HSS Hire.

When using socket cutter push

the hole-starting aid, point first, as far as it will go, into the connection end for socket cutters with dust removal. Fit the connection end into the chuck in





accordance with the instructions for fitting a diamond core bit. Fit the socket cutter onto the connection end. Push the dust removal attachment forward until it is in contact with the socket cutter and then secure it in this position

by sliding the locking ring toward the socket cutter.

When using core bit fit the connection end for core bits with dust removal into the chuck in accordance with the instructions for fitting a diamond core bit. Fit the core bit onto the connection end.



#### **REMOVING THE DIAMOND CORE BIT**

### **CAUTION!**

The core bit may become hot during use. There is a risk of burning your hands. WEAR PROTECTIVE GLOVES.

Disconnect the supply cord plug from the power outlet.

Open the chuck. Turn it in the direction of the open brackets symbol. Pull the sleeve on the chuck in the direction of the arrow towards the machine. This releases the core bit. Remove the core bit.

# **BASIC TECHNIQUES**

### SELECT DRILLING GEAR

Before drilling select the drilling speed (drill gear).

## WARNING

Do not operate the gear selector while the tool is running. You can change the drilling speed during your work only when the drilling rotation has stopped.

To select the gear make sure you do it **in accordance with the table on the tool.** Move the gear selector to the desired setting while rotating the core bit.

GEARS AND CORRESPONDING CORE BIT DIAMETERS			
	diameter (mm)	gear	
PCM core bits	42 - 162	I	
	diameter (mm)	gear	
HDM core bits	102 - 162	I	
	16 - 87	II	