

# OPERATING INSTRUCTIONS

## Core Drill

### 70-0095

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<p><i>In the interests of improving and updating its equipment, ELE reserves the right to alter specifications to equipment at any time</i> <b>ELE International 2012 ©</b></p>		

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## 1 Health and Safety

### Attention Operator:

- ❖ Read this manual carefully before operating your Laboratory Drill Stand
- ❖ Read and follow all safety information in this manual

### POTENTIAL HAZARDS



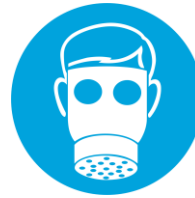
Read operating instructions before use of trailer.



Wear a mask when Dry Drilling



Wear:  
Hard Hat  
Eye protection  
Hearing protection.



Dangerous.  
Provide ventilation  
in closed areas.



Safety footwear



To avoid electrocution, check for live electrical wiring near cutting area, or in the concrete.



Gloves



Slurry is very slippery. Remove or control to prevent yourself, or others, slipping while drilling.



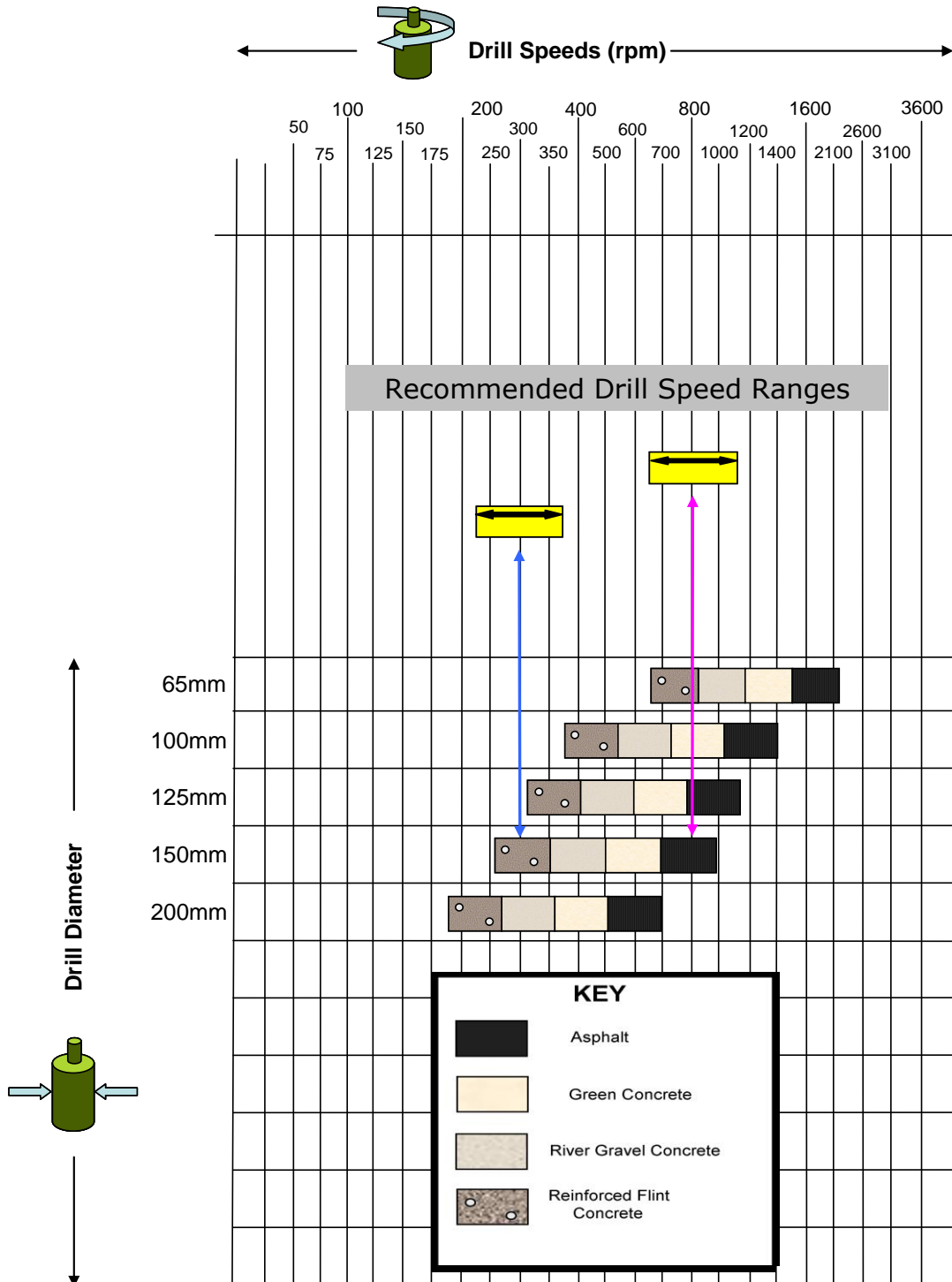
Use guard



Look out for warning symbols on the machine. Be very alert as your safety is involved!

## 2 Drill Speed Chart

### Drill Speed v Drill Diameter



3

### 3 Data Sheet



The Laboratory drill stand is ideal for core sampling in a variety of construction material samples.

- The drill stand is supplied with a rubber lined water tank with a clear-view front panel.
- Mounted inside the water tank is a sample-securing fixture fitted with three clamping nuts.
- Supplied with three speed electric drill motor to 220V or 110V.

#### Technical specification

Electric Drill:	110 Volt or 220 Volt dual frequency electric drill motor
Electric Drill Speed:	Three rotational speeds available 670rpm, 1140rpm or 1580rpm
Drill Bit Capacity:	Up to 110mm Maximum
Drill Bit Length:	450mm Maximum
Water Supply:	Adjustable water tap c/w input hose
Tank Size:	L 400mm x W 420mm x H x 300mm c/w water drain facility
Length:	460mm (18")
Width:	470mm (18.5")
Height:	1016mm (40")
Weight:	50 kgs (110lbs) excluding drill motor

#### 4 Introduction

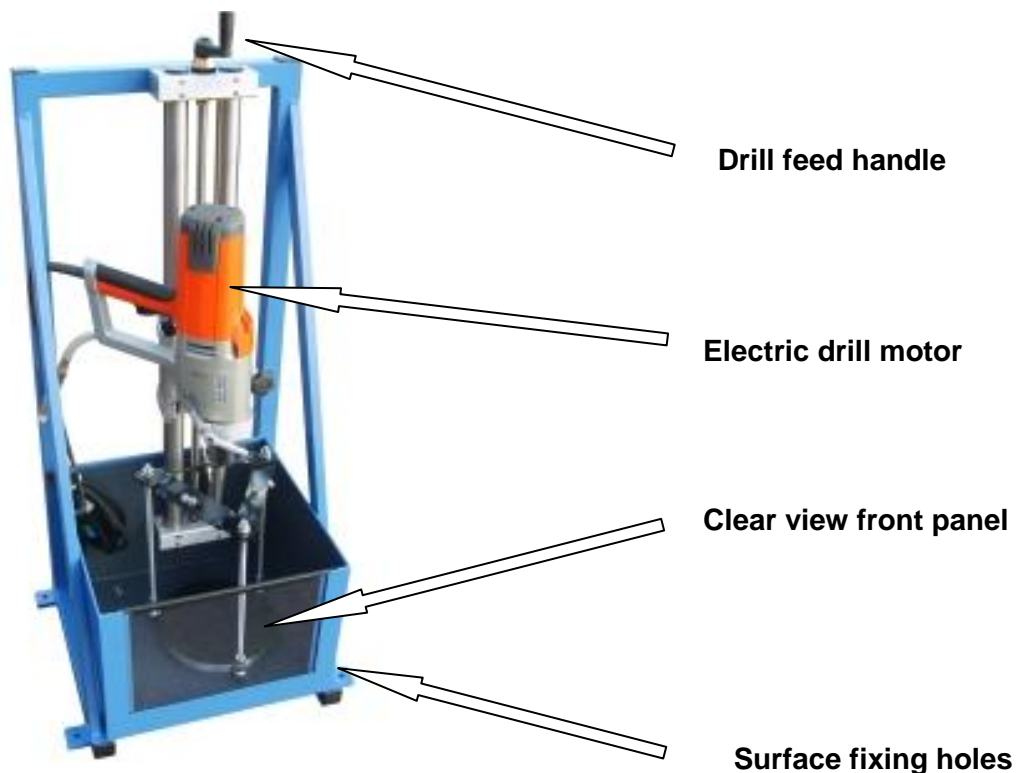
The Laboratory drill stand is manufactured using a mild steel framework which is powder coated for a high quality long lasting finish.

The unit comprises a rubber lined base tank with drain facility and a removable see-through front panel to allow the operator to see the cutting action whilst being protected from the rotating core bit and any associated water spray. Feet on the base of the unit allow for bolting to a laboratory floor if preferred.

Within the water tank is a universal clamp which can securely hold a variety of different shaped rock or material samples in any required plane during the coring process.

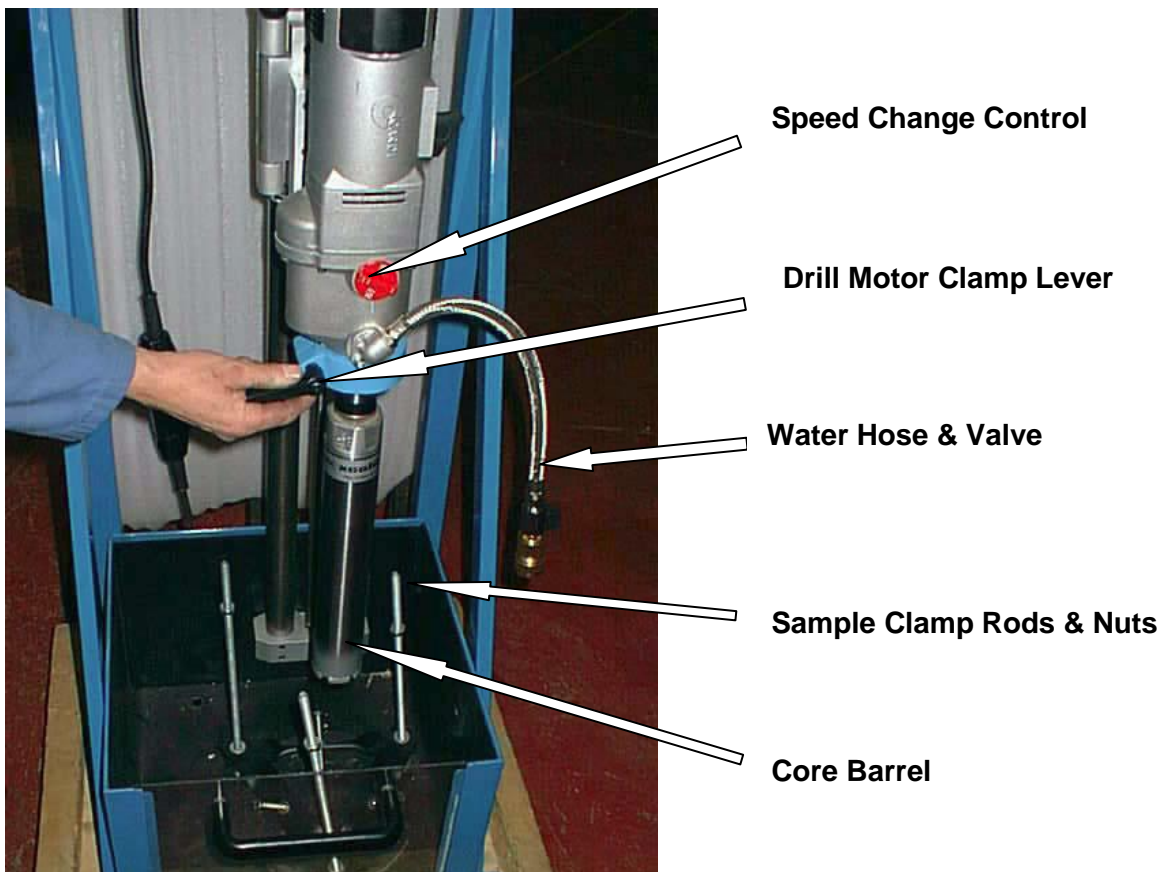
The electric drill motor has 3 speeds and is supplied with an integral water swivel assembly to allow for the controlled flow of coolant water during the coring process. The 3 speed drill motor allows the operator to select the best rotational speed which will be dependent on the size of hole being drilled and the type of material being drilled, see drill speed chart page 4.

**Drill stand shown fitted with 3 speed electric drill**



## 5 Operating Instructions

- 5.1 Please read the operating manual before commencing work and ensure that all health & safety requirements, safety equipment and safety procedures are correct and in place. Also check that the drill stand is firmly anchored to the floor.
- 5.2 Ensure the material sample is securely held in the clamp by firmly tightening the three nuts on the retaining bolts.
- 5.3 Before starting the drill motor ensure that the Drill Mounting Clamp Lever is fully tightened.
- 5.4 Screw onto the nose thread of the drill motor the desired size of core barrel and tighten with a suitable spanner.
- 5.5 Lower the core barrel until it is near the surface to be drilled by winding the drill feed screw handle clockwise.



- 5.6 Connect the available water supply to the water swivel adjuster tap which should be in the 'Off' position.
- 5.7 Connect an approved electric supply to the electric drill motor.
- 5.8 Check that all the above instructions have been correctly followed and ensure that all health and safety measures are in place.
- 5.9 Once the correct speed has been selected, turn on the electric drill motor by depressing the trigger and locking in place, see figure below. The core barrel should now be spinning at the required rpm.



- 5.10 Adjust the water tap to provide a sufficient flow of water. NB: Concrete samples should be drilled with just enough flow to ensure that the slurry leaving the core barrel has a strong colour, as this will indicate a high level of loose material within the slurry which is necessary to wear away the matrix material holding the diamonds. Asphalt samples will require a slightly higher flow rate which ensures that the loose material does not clog the diamond cutting segments.



- 5.11 Now gently rotate the drill feed lever clockwise until it touches the sample and starts to form a register in the material, as this helps to centrally locate the core barrel. Once this register has been established the operator can progressively turn the drill feed to continue the coring process.

Apply a constant force to the feed lever but do not use excessive force as this will damage or overheat the diamond core barrel segments.

- 5.12 Once the drilling process has been completed slowly withdraw the core barrel by operating the feed lever in an anti-clockwise direction but **just before** the barrel is clear of the hole, turn off the electric drill and the water supply.
- 5.13 Now fully withdraw the core barrel from the sample before inspecting the sample or trying to release the sample from the clamps.
- 5.14 Before drilling any additional samples please drain the water tank and dispose of the contents in an appropriate manner.

## DECLARATION OF CONFORMITY



**Manufacturer:**

**XCALIBRE EQUIPMENT LIMITED**  
Unit 3, Starley Court  
Hotchkiss Way  
Coventry CV3 2RL  
United Kingdom

Declare that the following product;

Machinery Type:

**Laboratory Drill Stand**

A. was manufactured in conformity with the provisions in the COUNCIL DIRECTIVE of 22 June 1998 on mutual approximation of the laws of Member States on the safety of machines (98/37/EEC) with special reference to Annex 1 of the Directive on essential health and safety requirements in relation to the construction and manufacture of machines.


B. was manufactured in conformity with the provisions in other relevant COUNCIL DIRECTIVES.

C. was manufactured in conformity with the current standards implementing harmonised standards in accordance with Article 5 (2) and other relevant standards.

Coventry, January 2010

Christian Molbech  
Managing Director  
XCALIBRE EQUIPMENT LIMITED

## DIRECTIVE ON WASTE ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE)

	<p>Electrical equipment marked with this symbol may not be disposed of in European public disposal systems after 12 August of 2005. In conformity with European local and national regulations (EU Directive 2002/96/EC), European electrical equipment users must now return old or end-of life equipment to the Producer for disposal at no charge to the user.</p> <p><b>Note:</b> <i>For return for recycling, please contact the equipment producer or supplier for instructions on how to return end-of-life equipment for proper disposal.</i></p> <p><b>Important document. Retain with product records.</b></p>
<p><b>GERMAN</b></p> <p>Elektrogeräte, die mit diesem Symbol gekennzeichnet sind, dürfen in Europa nach dem 12. August 2005 nicht mehr über die öffentliche Abfallentsorgung entsorgt werden. In Übereinstimmung mit lokalen und nationalen europäischen Bestimmungen (EU-Richtlinie 2002/96/EC), müssen Benutzer von Elektrogeräten in Europa ab diesem Zeitpunkt alte bzw. zu verschrottende Geräte zur Entsorgung kostenfrei an den Hersteller zurückgeben.</p> <p><b>Hinweis:</b> <i>Bitte wenden Sie sich an den Hersteller bzw. an den Händler, von dem Sie das Gerät bezogen haben, um Informationen zur Rückgabe des Altgeräts zur ordnungsgemäßen Entsorgung zu erhalten.</i></p> <p><b>Wichtige Informationen. Bitte zusammen mit den Produktinformationen aufbewahren.</b></p>	
<p><b>FRENCH</b></p> <p>A partir du 12 août 2005, il est interdit de mettre au rebut le matériel électrique marqué de ce symbole par les voies habituelles de déchetterie publique. Conformément à la réglementation européenne (directive UE 2002/96/EC), les utilisateurs de matériel électrique en Europe doivent désormais retourner le matériel usé ou périmé au fabricant pour élimination, sans frais pour l'utilisateur.</p> <p><b>Remarque :</b> <i>Veillez vous adresser au fabricant ou au fournisseur du matériel pour les instructions de retour du matériel usé ou périmé aux fins d'élimination conforme.</i></p> <p><b>Ce document est important. Conservez-le dans le dossier du produit.</b></p>	
<p><b>ITALIAN</b></p> <p>Le apparecchiature elettriche con apposto questo simbolo non possono essere smaltite nelle discariche pubbliche europee successivamente al 12 agosto 2005. In conformità alle normative europee locali e nazionali (Direttiva UE 2002/96/EC), gli utilizzatori europei di apparecchiature elettriche devono restituire al produttore le apparecchiature vecchie o a fine vita per lo smaltimento senza alcun costo a carico dell'utilizzatore.</p> <p><b>Nota:</b> <i>Per conoscere le modalità di restituzione delle apparecchiature a fine vita da riciclare, contattare il produttore o il fornitore dell'apparecchiatura per un corretto smaltimento.</i></p> <p><b>Documento importante. Conservare con la documentazione del prodotto.</b></p>	
<p><b>DANISH</b></p> <p>Elektriske apparater, der er mærket med dette symbol, må ikke bortskaffes i europæiske offentlige affaldssystemer efter den 12. august 2005. I henhold til europæiske lokale og nationale regler (EU-direktiv 2002/96/EF) skal europæiske brugere af elektriske apparater nu returnere gamle eller udtjente apparater til producenten med henblik på bortskaffelse uden omkostninger for brugeren.</p> <p><b>Bemærk:</b> <i>I forbindelse med returnering til genbrug skal du kontakte producenten eller leverandøren af apparatet for at få instruktioner om, hvordan udtjente apparater bortskaffes korrekt.</i></p> <p><b>Vigtigt dokument. Opbevares sammen med produktdokumenterne.</b></p>	

#### SWEDISH

Elektronikutrustning som är märkt med denna symbol kanske inte kan lämnas in på europeiska offentliga sopstationer efter 2005-08-12. Enligt europeiska lokala och nationella föreskrifter (EU-direktiv 2002/96/EC) måste användare av elektronikutrustning i Europa nu återlämna gammal eller uttrangerad utrustning till tillverkaren för kassering utan kostnad för användaren.

**Obs!** Om du ska återlämna utrustning för återvinning ska du kontakta tillverkaren av utrustningen eller återförsäljaren för att få anvisningar om hur du återlämnar kasserad utrustning för att den ska bortskaffas på rätt sätt.

**Viktigt dokument. Spara tillsammans med dina produktbeskrivningar.**

#### SPANISH

A partir del 12 de agosto de 2005, los equipos eléctricos que lleven este símbolo no deberán ser desechados en los puntos limpios europeos. De conformidad con las normativas europeas locales y nacionales (Directiva de la UE 2002/96/EC), a partir de esa fecha, los usuarios europeos de equipos eléctricos deberán devolver los equipos usados u obsoletos al fabricante de los mismos para su reciclado, sin coste alguno para el usuario.

**Nota:** *Sírvase ponerse en contacto con el fabricante o proveedor de los equipos para solicitar instrucciones sobre cómo devolver los equipos obsoletos para su correcto reciclado.*

**Documento importante. Guardar junto con los registros de los equipos.**

#### DUTCH

Elektrische apparatuur die is voorzien van dit symbool mag na 12 augustus 2005 niet meer worden afgevoerd naar Europese openbare afvalsystemen. Conform Europese lokale en nationale wetgeving (EU-richtlijn 2002/96/EC) dienen gebruikers van elektrische apparaten voortaan hun oude of afgedankte apparatuur kosteloos voor recycling of vernietiging naar de producent terug te brengen.

**Nota:** *Als u apparatuur voor recycling terugbrengt, moet u contact opnemen met de producent of leverancier voor instructies voor het terugbrengen van de afgedankte apparatuur voor een juiste verwerking.*

**Belangrijk document. Bewaar het bij de productpapieren.**

#### POLISH

Sprzęt elektryczny oznaczony takim symbolem nie może być likwidowany w europejskich systemach utylizacji po dniu 12 sierpnia 2005. Zgodnie z europejskimi, lokalnymi i państwowymi przepisami prawa (Dyrektywa Unii Europejskiej 2002/96/EC), użytkownicy sprzętu elektrycznego w Europie muszą obecnie przekazywać Producentowi stary sprzęt lub sprzęt po okresie użytkowania do bezpłatnej utylizacji.

**Uwaga:** *Aby przekazać sprzęt do recyklingu, należy zwrócić się do producenta lub dostawcy sprzętu w celu uzyskania instrukcji dotyczących procedur przekazywania do utylizacji sprzętu po okresie użytkowania.*

**Ważny dokument. Zachować z dokumentacją produktu.**

#### PORTUGUESE

Qualquer equipamento eléctrico que ostente este símbolo não poderá ser eliminado através dos sistemas públicos europeus de tratamento de resíduos sólidos a partir de 12 de Agosto de 2005. De acordo com as normas locais e europeias (Directiva Europeia 2002/96/EC), os utilizadores europeus de equipamentos eléctricos deverão agora devolver os seus equipamentos velhos ou em fim de vida ao produtor para o respectivo tratamento sem quaisquer custos para o utilizador.

**Nota:** *No que toca à devolução para reciclagem, por favor, contacte o produtor ou fornecedor do equipamento para instruções de devolução de equipamento em fim de vida para a sua correcta eliminação.*

**Documento importante. Mantenha junto dos registos do produto.**