

OPERATING INSTRUCTIONS

GSP210/250 Core Trimmer/Cut-Off Machine

70-0250

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In the interests of improving and updating its equipment, ELE reserves the right to alter specifications to equipment at any time			



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1 Introduction

1.1 This unit, which is designed primarily for use in rock mechanics, can also be used in mineralogy, ceramics and refractory sample preparation. Two vices are supplied, one for securing regular and irregular samples up to 70 x 125 mm, and the other a V-vice to enable the opposite ends of cores up to 57 mm diameter x 140 mm long to be cut parallel and square to the longitudinal axis. Cores longer than 140 mm can be prepared by reversing the specimen in the vice. The unit can also be used to prepare small cubes. Coolant is supplied to the cutting disc by means of mains water or by the Pump Unit 70-0310 series.

Approximate dimensions 406 x 915 x 760 mm. Rated power 750 W.

2 Safety Notes

Important: always use ear protectors and goggles when using the machine. Avoid loose clothing. Take extreme care when cutting. Ensure the vice is fully tightened. **Do not** put hands inside the machine whilst cutter is revolving.

3 Installation

- 3.1 This machine should be installed on a flat surface.
- 3.2 To fit diamond wheel or abrasive wheel, remove end cover of wheel guard, nut and outer wheel flange. Swing water pipes forward clear of wheel by releasing pipe nut inside wheel guard. Clean faces of wheel flanges, mount wheel on spindle, replace outer wheel flange and nut. To tighten nut insert tommy bar through collar of wheel guard into spindle to prevent spindle turning while tightening nut. Replace cover of wheel guard. Reset water pipes either side of wheel and tighten pipe nut.

4 Electrical Supply

Electrical safety

Warning: Before removing any covers or performing maintenance repair and service, isolate from electrical supply by removing mains plug. Where mains supply is required during these activities, only competent persons should perform the work.

- 4.1 Check that the power supply is compatible with the requirements stated on the label and connect in accordance with IEE regulations or to local requirements.
- 4.2 It is advised that this machine be connected via a residual current device (not supplied), and it should operate if earth leakage current exceeds 0.03 amps.
- 4.3 The power cable is coded as follows:

Brown wire	L	Live or Power
Blue wire	Ν	Neutral
Green/Yellow wire	Е	Earth or Ground

Exercise extreme caution when using the machine with wet hands. Dry hands before operating machine.

5 Coolant

5.1 Connect hose to hose nipple on water pipes and connect other end to coolant pump hose nipple on coolant tank or to main water if no coolant tank is in use. Connect hose to drain nipple on machine tray and insert other end through hole in coolant tank lid or, if main water is being used, away to waste.

6 Cutting

6.1 Three types of vice are supplied:-



- (a) Vice is used for irregular shaped samples of various sizes (Picture 1).
- (b) Vice is used for cutting or trimming small cores using a cutting wheel and then the double faced cupped wheel for parallel and flat testing faces (Picture 2).
- (c) Vice is used for cutting rectangular or square shaped specimens (Picture 3).
- (d) Water spray is used in conjunction with the double-faced cupped wheel EL70-0920 (Picture 4).
- (e) Water spray is used in conjunction with the cutting disc EL70-0270 (Picture 5).
- (f) Shows the use of the spanner with the tommy bar placed through the hole in the main shaft (Picture 6).





















- 6.2 Firmly grip specimen to be cut in vice in position with cutting wheel and in line with plane of desired cut.
- 6.3 Switch on coolant and set to steady flow with control tap on coolant pipe switch on cutting disc.



- 6.4 Feed specimen into cutting wheel by operating handle at front of machine. When cutting on angled or irregular surfaces feed very slowly until cutting wheel is fully entered into specimen. Fast feeding at the start of cut causes the cutting wheel to deflect from a true cutting path and thus produces a cut face which is not flat.
- 6.5 To produce further cuts, move specimen forward in the vice the desired amount and repeat cut.
- 6.6 Diamond wheels must not be used without coolant. Abrasive wheels can be used dry but this usually results in heavy wear.

7 Cutting Cores for Compression Test

- 7.1 Clamp the core in the vee blocks, first setting the centre block at suitable spacing to support the core inside the desired cut length. The left hand vee should not be moved. The right hand vee block is to support the cut off piece of core in cases where the core is much longer than the desired cut length.
- 7.2 Set the slide at the zero line which is $1.5 \text{ mm} (^{1}/_{16} \text{ inch})$ to the left of the rule zero. This allows for wheel thickness. Lock slide with lock screw on front of slide.
- 7.3 After making sure the core is firmly clamped, cut through at the zero reading, return slide to position where the cutting disc is clear of the vee blocks and clamps. Move slide to the left until you read off the length on the rule and repeat cut.
- 7.4 The start of all cuts should be done carefully to avoid wheel deflection, which can produce a cut out of square.

8 Cutting Cubes

8.1 These can be produced from 25 mm (1 inch) to 50 mm (2 inches) dimension. First cut a slice from the core to desired dimension as cutting instruction on previous page, thus producing two parallel faces. Lay the slice in the left hand vee block with one parallel face on the rear vee face clamp and cut two more faces on the same readings as first two cuts, producing a square prism with radius end faces. Lay the prism in the vee block with radius ends protruding either side and repeat cuts to produce cube.

9 Maintenance

9.1 Coolant tank and pipes should be cleaned out and disinfected regularly, excessive sludge accumulation can result in water pipes becoming clogged and water supply failing during cutting. This may result in diamond wheel damage. To clear water pipes first clean machine, tray and tank and fill with fresh coolant. Next remove screws which seal the ends of the water pipes and flush through. If the small jet holes in water pipes are clogged, clear with small piece of wire. Replace screws and check all jets are working.

10 Lubrication – Spindle

10.1 The spindle is grease lubricated and should be greased once a month. Be careful to replace grease nipple caps to prevent abrasive dust entering bearings. Recommended Grease – Total Multis EP2 or similar.

DIRECTIVE ON WASTE ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE)



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.

Note: For return for recycling, please contact the equipment producer or supplier for instructions on how to return end-of-life equipment for proper disposal.

Important document. Retain with product records.

GERMAN

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. *Hinweis:* 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.

Wichtige Informationen. Bitte zusammen mit den Produktinformationen aufbewahren.

FRENCH

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.

Remarque : Veuillez vous adresser au fabricant ou au fournisseur du matériel pour les instructions de retour du matériel usé ou périmé aux fins d'élimination conforme.

Ce document est important. Conservez-le dans le dossier du produit.

ITALIAN

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.

Nota: 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.

Documento importante. Conservare con la documentazione del prodotto.

DANISH

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.

Bemærk: I forbindelse med returnering til genbrug skal du kontakte producenten eller leverandøren af apparatet for at få instruktioner om, hvordan udtjente apparater bortskaffes korrekt.

Vigtigt dokument. Opbevares sammen med produktdokumenterne.

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 utrangerad 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 wetgegeving (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.

PORTUGESE

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.