

# **OPERATING INSTRUCTIONS**

## Large Curing Tank

34-6575 series

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ELE International, a division of Hach Lange Ltd.				
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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### Contents

Section		Page
1	Introduction	3
2	Specification	3
3	Installation	3
4	Maintenance	4
5	Temperature Stability	4
6	Accessories and Spares	4
	WEEE Directive	



### 1 Introduction

- 1.1 The curing tank is designed to provide temperature controlled storage for specimens prior to testing and has a maximum weight limit of 450 kg. This will equate to approximately 45 x 150 mm cubes or 145 x 100 mm cubes, allowing for the mass of the water. Under these conditions the heat of hydration is not expected to affect the water temperature control provided the environmental conditions described in the following paragraph are met.
- 1.2 Tests have indicated that the unit will maintain a constant temperature of  $20^{\circ}C \pm 2^{\circ}C$  provided it is situated in an environment where the ambient temperature does not fall below 15°C or rise above 20°C.
- 1.3 The water circulation is achieved by means of a submersible pump.
- 1.4 An immersion heater, complete with a controlling thermostat, is fitted into the tank.

### 2 Specification

Internal Dimensions (length x width x depth)	1040 x 1040 x 605 mm
Heater rating	2 kW
Weight	60 kg
Capacity	650 litres

### 3 Installation

- 3.1 The tank must be installed in a level position.
- 3.2 Fill the tank with clean water to a depth to cover the test cubes to be tested.
- 3.3 Electrical supply

### Safety

Whilst the test is in operation do not remove any covers or attempt to adjust any part of the machine.

Ensure all moving parts are thoroughly secured before attempting any maintenance.

### 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.

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.

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.

The power cable is coded as follows:

Brown wire	L	Live or Power
Blue wire	Ν	Neutral
Green/Yellow wire	E	Earth or ground

**Note:** exercise extreme caution when using the machine with wet hands. Dry hands before operating machine.

**Important:** this equipment must be correctly earthed.

### Portable Appliance Tests (PAT)

All ELE designed products are tested for electrical safety prior to sale.



Organisations have an obligation to ensure equipment is maintained and is safe for use. Regular PAT testing is one means of ensuring equipment continues to be electrically safe.

Important: do not connect PAT leads to sensitive components such as PCBs, control switches and the like.

### DO NOT FLASH TEST ELECTRONIC EQUIPMENT.

If in doubt as to the most suitable connection point (which will usually be an earth stud or an external earth connection) contact ELE service department for assistance.

- 3.4 The heater unit isolating control box must be attached to a suitable surface near the tank. **Note: This work must be carried out by a qualified person.**
- 3.5 The pump circuit should be fused as specified on the voltage labels.
- 3.6 Switch on both circuits and allow the unit to run until it reaches temperature.
- 3.7 If the temperature set is not as required, it should be adjusted as follows.
- 3.8 Rotate the knob on top of the heater unit to adjust to temperature setting required. (Rotate clockwise to increase temperature setting and anti-clockwise to decrease.) Repeat procedure as necessary.

Note: See also Section 5, Temperature Stability.

- 3.9 The tank is now ready for use.
- 3.10 When placing cubes into the tank, it is important that adequate circulation of water is maintained around each cube.

### 4 Maintenance

- 4.1 Disconnect unit from electrical supply before commencing any maintenance.
- 4.2 It is recommended to remove sediment from the bottom of the tank after 4 to 6 months. This can be done by flushing out the water and sediment from the bottom of the tank.
- 4.3 Remove any scale from the heater being careful not to damage the element.
- 4.4 Refill tank to the desired level.
- 4.5 Reconnect the electrical supply.
- 4.6 Switch on.

### 5 Temperature Stability

- 5.1 Conditions slightly above 20°C room temperature can be accepted due to the cooling effect of evaporation from the surface of the water in the tank. If, due to the heat of hydration, temperature increases to above that required, the use of either a portable cooler unit or a cold water cooling coil should be used.
- 5.2 If the laboratory temperature falls much below 15°C for short periods, the use of insulation around and below the tank may be considered, together with a covering of table tennis balls or similar as flotation material on the surface of the water. This will reduce heat loss considerably to ensure the maintenance of the required temperature.

### 6 Accessories and Spares

Contact ELE service department for any spares required.

### 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.