

## Moisture / Density relationship Compacto 33-T8500 Series / Automatic Proctor/CBR compactors

### COMPACTO 33-T8500 SERIES AUTOMATIC PROCTOR/CBR COMPACTORS

#### Introduction

This new and advanced digital model can be supplied in two versions:

**Standard models** 33-T8502 (230 V, 50 Hz, 1 ph.), 33-T8503 (220 V, 60 Hz, 1 ph.), 33-T8504 (110 V, 60 Hz, 1 ph.)

**Programmable model** 33-T8532 (230 V, 50 Hz, 1 ph.)

The two versions are identical except for the digital control: the standard model is factory programmed to perform all standard compaction conforming American ASTM/AASHTO and European pr EN, BS, NLT whilst the programmable model can also be set to suit special compaction cycles for research purposes and can perform the central compaction blows in the 6" (150 mm) dia. moulds conforming the French NF and the Dutch RAV standards.

**The 33-T8502, 33-T8503, and 33-T8504 compactors do not include the internal rammer, which has to be ordered separately conforming the selected standards.**

All models can be supplied complete with noise reduction cabinet (See Upgrading option code 33-T8500/XUP).

#### STANDARD

##### pr EN 13286-2, -47

CNR UNI 10009 - CNR 69 - ASTM D698, D1557 - AASHTO T 99, T 180, T 193 - BS 1377:4, 1990 - NF P94-093<sup>(2)</sup> - NLT 107/91, 108/91, 111/87 - DIN 18127<sup>(1)</sup> - RAV 2000<sup>(2)</sup>

(1) Conforming to DIN, 100 mm dia. moulds only

(2) With models 33-T8532 only

#### STANDARD MODELS

##### 33-T8502

**Digital automatic Proctor/CBR compactor (without rammer).**

230 V, 50 Hz, 1 ph.

##### 33-T8503

**Digital automatic Proctor/CBR compactor (without rammer).**

220 V, 60 Hz, 1 ph.

##### 33-T8504

**Digital automatic Proctor/CBR compactor (without rammer).**

110 V, 60 Hz, 1 ph.

#### General description and specifications

The Compacto digital compactors provide a fully automatic uniform compaction assuring repeatable test results and eliminating any operator fatigue. The unique original lifting mechanism of the rammer features a constant and precise fall height much more reliable than models using the technique of the two rotating lifting discs causing frequent sliding effect. The high quality of materials particularly for those parts subjected to wear and the latest microprocessor technology adopted assures long life of the Compacto digital compactors.

#### Technical specifications

**Usable for moulds diameter:** from 100 to 102 and from 150 to 152.4 mm

**Selectable rammer drop:** 300, 305, 450, 457 mm (adjustable)

**Blow rate:** 30 blows/min

**Power:** 740 W

**Overall dimensions:**  
490x340x1410 mm

**Weight approx.:** 150 kg



33-T8502, 33-T8503, 33-T8504. Detail of the control panel. The display counts the number of blows selected by the operator, the number of layers and the diameter of mould. An emergency stop button is included as standard.

#### Main features

- Automatic control
- Compaction cycles conforming to pr EN ASTM, AASHTO, BS, NLT, CNR-UNI
- User defined compaction sequence
- Protection guards for operator safety (CE)
- Noise reduction cabinet available
- Digital touch button console
- Unique hammer lifting device to guarantee correct drop height
- Easy use and maintenance
- Modern and reliable design to ensure long working life
- Compaction energies and distribution in accordance with standards



33-T8502, 33-T8503, 33-T8504 models

#### Important notes

- The 33-T8502, T8503, and T8504 compactors have to be completed with the suitable rammer conforming to the selected standards. See compaction rammers.
- All compactors can be supplied fitted in the noise reduction cabinet (See Upgrading option code 33-T8500/XUP).

#### Compaction rammers

Code	Description	Standards
33-T8500/1	Rammer for 33-T8500 Series Automatic compactors, 50.8 mm dia., 2495/4535 g weight	ASTM D698, D1557 AASHTO T99, T180, T193 CNR UNI 10009 CNR 69
33-T8500/2	Rammer for 33-T8500 Series Automatic compactors, 50 mm dia., 2491/4535 g weight	pr EN 13286-2, -47 BS 1377:4, 1990 NF P94-093 NLT 107/91, 108/91, 111/87 DIN 18127 RAV 2000

## Moisture / Density relationship Compacto 33-T8500 Series / Automatic Proctor/CBR compactors (continued)

### PROGRAMMABLE MODEL

#### ■ 33-T8532

Digital programmable automatic Proctor/CBR compactor.

Complete with rammer 50 mm dia. 2491/4535 g weight. 230 V, 50 Hz, 1 ph.

### General description

This research model is substantially similar to the standard model except for the more sophisticated compaction technique, which features all methods of the standard

models plus the performance of the central blow prescribed by the French NF and Dutch RAV standards. Furthermore the hand held control panel features a large digital display of 240x128 pixel. The user friendly software is set out to follow logical sequences to lead the operator through each stage of the compaction. At the start of the test cycle the operator selects the Standard (ASTM, NF, etc.) and the mould size and the test automatically proceeds. The display shows the current state of the test in real time. The end of each layer compaction is indicated by a visual and acoustic signal.

### UPGRADING OPTIONS:

#### NOISE REDUCTION AND SAFETY CABINETS

#### ■ 33-T8500/XUP

Noise reduction and safety cabinet for Compacto 33-T8500 and 33-T8600 Series automatic compactors

### General description

All compactors can be supplied complete with the above cabinet, which is essential for use in the laboratory conforming to the CE prescriptions. Selecting this option, the compactor is supplied without safety guards, the control panel is fitted externally and the safety switch fitted to the cabinet door.

The complete arrangement (compactor and cabinet) has to be factory installed. When ordering the compactor, code number has to be followed by the code of this option. Example: compactor model 33-T8502 plus upgrading option Noise reduction and safety cabinet 33-T8500/XUP.

#### Extra features of the 33-T8532 programmable model

- User defined compaction sequence for research work
- Microprocessor controlled
- Hand held digital control panel
- Display in English, French, German, Spanish, and Italian
- Central blow conforming to NF and RAV standards



33-T8532. Detail of the hand held control panel. The user-friendly software is set out in an easy to follow logical sequence through each stage of the compaction. The end of each compaction stage is indicated by a visual and acoustic signal.

#### Overall dimensions:

820x820x2165 mm

#### Weight (cabinet only): 180 kg

approx.




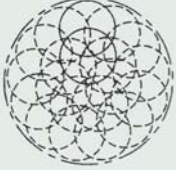
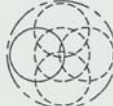
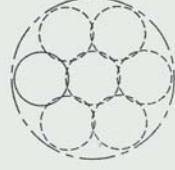
33-T8532 model



33-T8532. Detail of the large 240x128 pixel display. The displayed information can be pre-set in English, French, German, Spanish and Italian. The above are just some of various possibilities that the system offers.



Automatic compactor fitted in noise reduction cabinet.

COMPACTO 33-T8500 SERIES (ALL MODELS). DISTRIBUTION OF DROP PATTERN.		COMPACTO 33-T8532. DISTRIBUTION BY CENTRAL BLOW REQUIRED BY NF AND SELECTABLE BY SOFTWARE.	
Mould ø 101.6 – 105 mm	Mould ø 150 – 152.4 mm	Mould ø 101.5 mm	Mould ø 152 mm
			



33-T8500 Series with CBR mould. View with open doors. Closing the doors all moving parts are shielded and micro switches prevent operation with the doors open. This design makes maintenance extremely easy. The upper frame housing the rammer mechanism moves automatically angularly for the total surface compaction of the 152.4 mm dia. (6") moulded specimens. The rammer pick-up has a cam system for accurate height release and is made of highly resistant material for trouble free long life. The rammer portion is moved across the sample surface by a cogged gear whilst the mould rotates on the lower table.