



**NIEUWKOOP**

METEN.NL

# USER MANUAL



## FT2010

SOIL COMPACTION TESTER



TO MEASURE  TO KNOW



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## **1 Introduction**

Thank you for choosing our Soil Compaction Tester. You have got a robust tool for daily practice. Please read this manual carefully before operating the unit.

## **2 Scope of delivery**

- ✓ 1 Probe
- ✓ 2 Handles
- ✓ 1 Tip 13 mm
- ✓ 1 Tip 19 mm
- ✓ 1 Tip holder and depth stop
- ✓ 1 User manual

## **3 Intended use**

The Soil Compaction Tester is used to determine soil compaction on agricultural land by insertion of the probe into the soil and reading the plunge resistance on the manometer during plunge. To obtain meaningful results, the measurement has to be carried out at various points on the field.

### **Instructions for the use**

- When inserting the probe, make sure that it does not bend.
- Make sure, that no one is injured by the tip.
- Protect the unit from bumps and impacts.
- Store and transport the device in a horizontal position to avoid the danger of falling over.



## 4 Security

### 4.1 Safety instructions for the buyer



**IMPORTANT!** Make sure that each person who works for the first time with the Soil Compaction Tester, has read and understood this manual.



**DANGER!** Make sure that the Soil Compaction Tester is kept in a place that is not accessible to unauthorized persons.

### 4.2 Safety instructions for the operator



**DANGER!** The Soil Compaction Tester may only be operated by persons who are familiar with the operation of the device.



**PRECAUTION!**  
Keep the work area clean! Soiled areas contributes to accidents.

### 4.3 Personal protective equipment



**WARNING!**  
For people who work with the device, the wearing of safety gloves is required.



**WARNING!**  
For people who work with the device or remain in the work area, the wearing of safety shoes is required.



## 4.4 Residual hazards

Working with the device residual risks may arise for persons and objects that cannot be prevented by design or technical protection measures.



**DANGER!**

During the handling of the device there may be a risk of injuries because of the tip.



**WARNING!**

The Soil Compaction Tester must not be operated in the area of live parts and wiring. There is a risk of electric shock!



**WARNING!**

The Soil Compaction Tester must not be operated in explosive areas.

## 5 Technical Specifications

- All parts made of stainless steel
- Probe diameter: 12 mm
- Analog manometer
- Measuring range from 0 to 400 psi
- Box dimensions: 980x80x80 mm (LxWxH)
- Device dim: 913x292x58 mm (LxWxH)
- Weight: 2100 g
- Usable probe length: 765 mm

## 6 Commissioning

If the device is not supplied in assembled state, screw the two handles into the upper part and tighten them.



## **7 Working with the device**

- The best time to use the tester is in early spring before you till the soil. The soil should have a good moisture content because the moisture content and soil texture will affect the readings of the tester.
- Choose the tip that best suits the type of soil you have. The small tip is used for firm soil and the larger tip is used for loose soil.
- Slowly insert the probe into the soil. Hold the probe only at the handle and not at the display.
- You can read the plunge depth on the AGRETO Soil Compaction Tester. The bracket for the second tip can be used as indicator for the plunge depth.
- The pressure profile is displayed continuously. Watch the pressure profile during the plunge. There is a compacted layer when the pressure at a certain depth always rises abruptly and upon further plunges drops down. The displayed value represents the pressure that must be applied with the tip used to penetrate the soil layer. When using the 13 mm tip, the inner scale is valid. When using the 19 mm tip, the outer scale is valid. The red, yellow and green coloring of the scale helps the user to evaluate the results.
- Repeat the measurements at different places. If you drive more frequently in certain tracks, then the soil compaction might be higher there.

## **8 Cleaning and maintenance**

- Clean any visible dirt on the device with a cloth and possibly with usual detergents.
- Store the device on a dry and secure place.

## **9 Troubleshooting**

In case of any damage to the unit, please contact your dealer or Nieuwkoop Aalsmeer.



## 10 Warranty

Over and above statutory warranty for Soil Compaction Tester following warranty provisions apply:

- Nieuwkoop guarantees the function and repairs or replaces all the parts that have a material or manufacturing damage within the warranty period.
- Warranty services will be performed by the manufacturer.
- The decision on the existence of a warranty claim is sole responsibility of Nieuwkoop.
- The warranty period begins with the first accounting to an end customer and ends 5 years from this date of invoice.
- Prerequisite for warranty service are the presentation of the original invoice and compliance with all elements of this instruction manual.
- Excluded from warranty are wear, normal wear and tear, damage due to misuse, negligence or accident.
- When processing a warranty claim transport costs incurred will be charged to the buyer.

## 11 Disposal



Dispose of the Soil Compaction Tester in the definitive shutdown or parts of environmentally friendly (metal to the respective metal scrap, plastic to plastic waste, etc. - Do not dispose as household waste!)

Detailed information can be found in Directive 2002/96/EC



## 12 Imprint

All information, specifications and illustrations are as of 2018, subject to technical changes or design changes.

All information in this manual are supplied without liability despite careful preparation.

A liability by the author is excluded.

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