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Elcometer 224 Model T Digital Surface Profile Gauge

Elcometer 224 Model T Digital Surface Profile Gauge

The Elcometer 224 T works in the same way as the model S, but has the advantage of a large built-in memory to accurately record each measurement.

The memory is able to store up to 50,000 readings in 999 batches. This enables extremely quick readings to be automatically stored, ideal for measuring large surface areas.

A statistical analysis is also displayed on the gauge and stored within each batch.

Data can be downloaded to a PC and, using ElcoMaster™ Software (supplied free of charge with this gauge), detailed reports can be created in seconds. Data can also be transferred to a spreadsheet.

When connected to a miniprinter, results can be printed out and attached to the inspection report immediately, on site, before creating the official report using ElcoMaster™.

- **Accurate and repeatable results:**
  Accurate, immediate and repeatable results everytime. Measures profiles up to 500μm (20mils)

- **Fast reading rate:**
  40+ readings per minute.

- **Intuitive menus in multiple languages:**
  Enables use straight from the box.

Surface Profile

Making sure that the correct roughness – or profile – has been generated on a surface prior to coating is essential.

If the profile is too low, the adhesion of the coating to the surface will be affected. Too high and there is a danger that the profile peaks will remain uncoated – allowing rust spots to occur. As the profile increase, so does the surface area – which in turn increases the amount of coating which needs to be applied. Achieving the correct surface profile enables the optimum amount of coating to be applied saving both time and money.

There are essentially four different methods available for testing surface profile:

- Surface Comparators
- Replica Tape Method
- Surface Profile Gauges
- Surface Roughness Testers

At a glance:

Three measurement modes:
- Immediate Mode
- Batch Mode
- Counted Average Mode

Built-in statistics:
- Number of readings
- Mean
- Standard Deviation
- Highest Reading
- Lowest Reading

Can be used in accordance with:	
ASTM D 4417-B	SABS 772

- **Backlit screen:**
  Large backlit screen makes viewing readings easy.

- **Digital display:**
  Prevents reading interpretation errors.

- **Cost effective testing:**
  Cost per test is significantly lower than other test methods.

- **Continuous read feature:**
  Ideal for quickly checking large surfaces.

- **Built-in statistics:**
  Statistics are available and can be displayed on the screen as readings are taken.

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The Elcometer 224 T operates in one of three modes; immediate, batch or counted average.

- Immediate mode: The gauge takes readings and calculates statistics but does not store any readings in the memory (this is known as rolling statistics).
- Batch mode: The gauge takes measurements and stores the individual readings and the statistical analysis in the memory. Batch mode, or batching, allows data to be collected in groups to allow easier analysis of large or complex structures. The Elcometer 224 T has a memory capacity for up to 50,000 readings in up to 999 batches.
- Counted average mode: The gauge will automatically calculate the average of a pre-determined number of readings. Each of these averages is recorded within the batch and stored in the memory.

	Model S	Model T
Multi language menus	•	•
Backlit screen	•	•
Field replaceable tip	•	•
Rolling statistics	•	•
Stored statistics		•
RS232 interface		•
Memory		•
High / Low reading limits		•
Batching mode		•
Batch review		•
ElcoMaster™ software		•
Print / output		•
Part numbers	E224----S	E224----T
Packing list	Elcometer 224S gauge, zero plate, carrying pouch, probe protection cap, batteries, operating instructions	Elcometer 224T gauge, zero plate, carrying pouch, probe protection cap, batteries, ElcoMaster™ Software, PC connection cable, operating instructions

Range	0µm to 500µm (0 mils to 20 mils)	**Operating temperature**	0°C to 50°C (32°F to 120°F)
Accuracy	±5% or ±5µm (±0.2 mils)	**Storage temperature**	-10°C to 55°C (14°F to 130°F)
Resolution	1µm (0.1 mils)	**Dimensions**	140 x 75 x 35mm (5.5 x 3 x 1.38")
Measurement speed	>40 readings per minute	**Weight**	180g (5.7oz)

Spares & Accessories	
Replacement tip (x2) pack with fixing tool	T22420053
Replacement tip (x2) pack	T22420054
Replacement tip (x5) pack	T22420095
Replacement tip protection cap	T22419793
Glass zero plate with wallet	T22420072
Gauge-to-PC Connection cable (9 pin)	T99916217
Miniprinter, UK 240V	X4569964B
Miniprinter, EUR 200V	X4569964C
Miniprinter, US 110V	X4569964D
Miniprinter gauge-to-printer connection cable (25 pin)	T99916267
Miniprinter ribbon cassettes (pack of 5)	T9769992-
Miniprinter Paper rolls (box of 20)	T9999993-

# ElcoMaster™ Data Management Software

Whether you want to use the data for analysis or to create professional reports for distribution to customers or colleagues, ElcoMaster™ can help. With built in report templates and easy access of all data, images and other associated files, ElcoMaster™ makes managing your data simple.
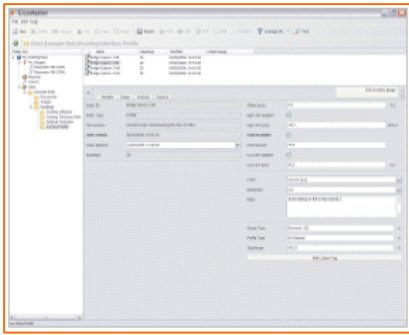
The software has been designed to be familiar and intuitive to any PC user. When the gauge is connected to the PC, individual readings can be sent directly into the software for real time analysis or simply 'drag and drop' a batch from the gauge to the software.

You can store all of your associated job or inspection files, health and safety reports etc. within ElcoMaster™ - providing you with one programme that holds all of your inspection information in one place.

Viewing data and producing standard reports is achievable in just a few clicks. Fully customised reports can be produced quickly by using the ElcoMaster™ report designer.
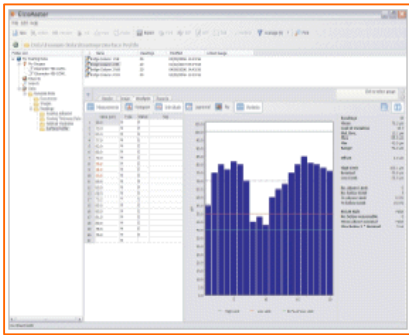
In addition to the readings and charts, you can also assign a digital photograph to an individual batch of data, allowing you to visually display the inspection area in your reports. Batches can be combined for immediate comparison of data from various areas of the job site.

ElcoMaster™ features include:

- Create professional reports in seconds.
- Export reports to spreadsheets, text files or save as PDF or JPEG files.
- Copy and paste reports into other documents.
- Reports can be combined in order to clearly compare different batches.
- E-mail reports directly from ElcoMaster™.
- Assign batch identification tags.
- Batches can be renamed to clearly identify the inspection batch.
- Wide range of standard reports include;
  - o Individual measurements
  - o Statistics
  - o Histograms
  - o Individual line or bar charts
  - o Log normal
  - o Pie charts
- Fully customise reports using the ElcoMaster™ report designer tool.
- Include company graphics and logos on every report.
- Combine batches to compare readings or link batches together from different gauges into one comprehensive inspection file.
- Find feature to quickly locate a specific file or batch.

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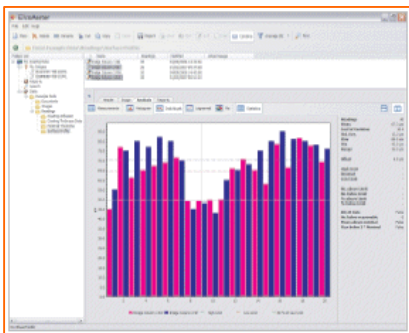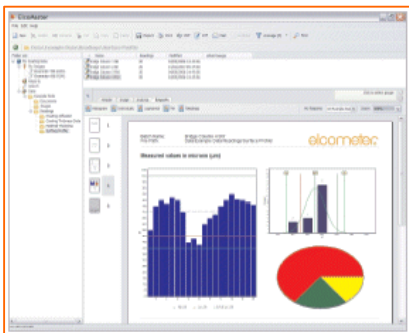
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Related Products

The Elcometer 224 S Digital Surface Profile Gauge provides an accurate way to measure surface profiles in microns and mils. The Elcometer 224 S is an ideal gauge for quality checking the surface profile. Although the gauge has no memory, it does display statistical values as readings are taken.

Elcometer 224 S

This is an easy to use gauge that measures the peak-to-valley height of a blast cleaned surface. The average of a series of measurements provides an indication of the surface roughness and allows the surfaces to be compared as blasting proceeds.

Elcometer 123

The Elcometer 223 is a battery operated digital surface profile gauge which measures the peak-to-valley height of a surface in a similar way to the Elcometer 123 analogue equivalent, but with the added benefit of a direct RS232 output for data logging.

Elcometer 223