

Elcometer 123

Surface Profile Gauge

Operating Instructions



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A copy of this Instruction Manual is available for download on our Website via www.elcometer.com.

CONTENTS

Section	Page
1 Introduction	2
2 Using a Surface Profile Gauge	3
3 Maintenance	4
4 Technical specification	4
5 Spares	5
6 Related equipment	5

Thank you for your purchase of the Elcometer 123 Surface Profile Gauge. Welcome to Elcometer.

Elcometer are world leaders in the design, manufacture and supply of inspection equipment for coatings and concrete. Our products cover all aspects of coating inspection, from development through application to post application inspection.

The Elcometer 123 Surface Profile Gauge is a world beating product. With the purchase of this product you now have access to the worldwide service and support network of Elcometer. For more information visit our website at www.elcometer.com

1 INTRODUCTION

The Elcometer 123 Surface Profile Gauge measures 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.

1.1 STANDARDS

Your Elcometer 123 Surface Profile Gauge can be used in accordance with the following National and International Standards: ASTM D 4417-B, SANS 5772, US Navy NSI 009-32, US Navy PPI 63101-000.

1.2 WHAT THE BOX CONTAINS

- Elcometer 123 Surface Profile Gauge
- Glass slide
- 2mm allen key
- Carry case
- Operating Instructions

2 USING A SURFACE PROFILE GAUGE

1. Ensure that the gauge is set to zero before taking any measurements, thus: loosen the clamp locking screw, allowing the knurled bezel with the scale to rotate; place the gauge on the glass slide provided; turn the bezel until the pointer is aligned to zero; re-tighten the clamp screw.
2. Place the gauge on the surface to be measured. The spring-loaded tip is projected into the valley and the depth is indicated on the dial in microns or mils, according to the scale. See diagrams opposite.
3. To obtain a representative value of peak-to-valley height, a number of readings (at least 10) should be taken on a given surface area and the average obtained.
4. When evaluating the results, it must be remembered that the instrument reads from the three maximum peaks under the foot.
5. Under normal conditions of use, the zero setting of the gauge will not change if the bezel is locked. If, however, a shift in zero is noted, this is an indication of a worn or damaged tip, which should be replaced.

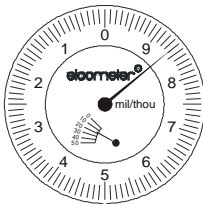
MIL/THOU SCALE.

Each division on outer scale = 0.1 mils

Each numbered division = 1mils

Each division on inner scale = 10 mils

e.g Clock in diagram is showing 18.6mils



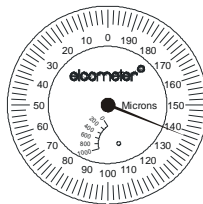
MICRON SCALE.

Each division on outer scale = 2 microns

Each numbered division = 10 microns

Each division on inner scale = 200 microns

e.g Clock in diagram is showing 338 microns



3 MAINTENANCE

Elcometer products are designed to give many years reliable service under normal operating and storage conditions.

4 TECHNICAL SPECIFICATION

Material:	Stainless steel
Dimensions:	105 x 55 x 25mm (4.1 x 2.2 x 1")
Range:	0 - 1000 μ m or 0-50mils/thou
Scale:	2 μ m or 0.1mil/thou
Tip:	60° cone with 50 μ m radius
Weight:	335g (8oz)

Your Elcometer 123 Surface Profile Gauge may be packed in a cardboard and foam package. Please ensure that this packaging is disposed of in an environmentally sensitive manner. Consult your local Environmental Authority for further guidance.

5 SPARES

The Elcometer 123 Surface Profile Gauge is complete with all the items required to get started and take measurements, however over the life of the Gauge replacements may be required. The following items are available from Elcometer, or your local supplier.

Part description	Sales part number
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Spare Tip	T12311708
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To order spare parts, contact Elcometer, your local supplier or visit www.elcometer.com

6 RELATED EQUIPMENT

In addition to the Surface Profile Gauge, Elcometer produces a wide range of other Surface Profile Equipment. Users of the Surface Profile Gauge may also benefit from the following Elcometer product ranges:

Elcometer 223 Digital Surface Profile Gauge

Elcometer 224 Digital Surface Profile Gauge

For further information contact Elcometer, your local Elcometer supplier or visit www.elcometer.com