

# Elcometer 3000 Clemen Unit



Elcometer 3000 Clemen Unit



### At a glance

- Available as either a manual or motorised version.
- Variable load adjustment and interchangeable scratch tool.
- Used to evaluate resistance to scratching.

### Can be used in accordance with:

BS 3900 E2	BS 3900 E5
BS EN 13523-12	ISO 1518

### Elcometer 3000 Clemen Unit

Designed to evaluate resistance to scratching. A tool fitted with a hemispherical ball of 1mm diameter (standard) is lowered gradually onto the surface of the sample and moved 6cm.

Depending on the purpose of the test and the load applied, varying degrees of penetration of the tool into the coating are observed, from a superficial trace to total destruction.

The Elcometer 3000 is available in two versions; the original Manual Clemen Unit and the Motorised Clemen Unit. See also the Elcometer 1535 Multifunction Scratching Tool.

### Elcometer 3000/1 Manual Clemen Unit:

The tool is positioned on the sample, which is fixed on a sliding platform and moved manually. Load variable from 0 to 2000g.

### Elcometer 3000/3 Motorised Clemen Unit:

The motorised motion brings the tool gently in contact with the sample, whatever the load, variable from 0 to 5000g, and moves it across the coating, with automatic start and stop. The contact of the tool with the metallic substrate is indicated by a lamp and voltmeter.

### Hardness Testers

Improved mechanical resistance is part of many quality requirements. One important criteria for assessing this feature is hardness.

Depending on the requirements there are various methods for testing hardness. Some are dedicated to characterise coatings and others are more suitable for testing bulk materials such as metals, plastics, rubber or elastomers.

Elcometer manufacture and supply a wide range of instrumentation designed for the hardness tests most frequently used in the industry – these include pendulum, scratching, indentation or rebound measuring methods.

Model	Description	Part Number		
		UK 240V	EUR 220V	US 110V
Elcometer 3000/1	Elcometer 3000 Manual Clemen Unit	K0003000M001		
Elcometer 3000/3	Elcometer 3000 Motorised Electric Clemen Unit	K0003000M003	K0US3000M003	
Accessories	Adjustment Kit to test from 5 to 20mm	KT003000N015		
	Luminous microscope - x30	KT007210M001		
	Magnifier – x10	KT001546N002		
	1mm Ball Tool in Tungsten Carbide	KT003000P021		
	2mm Cutting Tool in Tungsten Carbide	KT003000N001		
	VW Cutting Tool	KT003000N013		
	1cm <sup>2</sup> Rubber Tool for Drying Time	KT003000N002		
Packing List	Elcometer 3000/1 Clemen Unit or Elcometer 3000/3 Motorised Clemen Unit, 4 x 1000g weight (Elcometer 3000/3 models only), 1mm (0.04") Ball Tool & Operating Instructions			

## Related products



Elcometer 3030/3040

The pendulum hardness tester works on the principle of the damping time of a pendulum oscillating on the sample. The amplitude of the oscillation reduces faster when the sample is soft. The Persoz and König methods differ by the dimension, time period and amplitude of the oscillation.



Elcometer 3092

This simple sclerometer contains a round tip which is compressed by a spring. The amount of compression on the spring increases the force as the tip is pressed into the coating - by varying the force the user can determine the coating hardness.

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