

**Elcometer 3570 • 3580**

**Film Applicator**

**Operating Instructions**

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Thank you for your purchase of this Elcometer Film Applicator. 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.

This Elcometer Film Applicator is a world beating product. With the purchase of this instrument you now have access to the worldwide service and support network of Elcometer. For more information visit our website at [www.elcometer.com](http://www.elcometer.com)

## 1 ABOUT THIS INSTRUMENT

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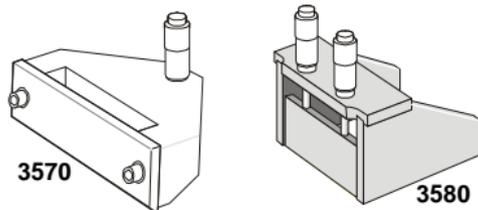
This Elcometer Film Applicator is a simple but effective instrument for applying a uniform and reproducible film of coating to a substrate.

The Elcometer 3580 is suitable for manual application of thick layers of various products on solid and flat substrates.

The Elcometer 3570 is recommended only for application of relatively viscous fluids having a viscosity greater than 2000 cP.

Your film applicator is suitable for manual application only; it is not recommended for use with a motorised film applicator.

These instructions describe the operation of the Elcometer 3570 Micrometric and the Elcometer 3580 Casting Knife film applicators.



### 1.1 STANDARDS

Your Elcometer Film Applicator can be used in accordance with the following National and International Standards: ASTM D 823-E.

## 1.2 WHAT THE BOX CONTAINS

- Elcometer Film Applicator
- Hexagonal wrench (Elcometer 3570 only)
- Storage case
- Operating instructions

Your Elcometer Film Applicator is 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.

**To maximise the benefits of your new Elcometer Film Applicator please take some time to read these Operating Instructions. Do not hesitate to contact Elcometer or your Elcometer supplier if you have any questions.**

## 2 SETTING THE BLADE GAP

 Take care while you are handling and using your Elcometer Film Applicator. Damage to the working surfaces will affect the film thickness and the instrument may have to be replaced.

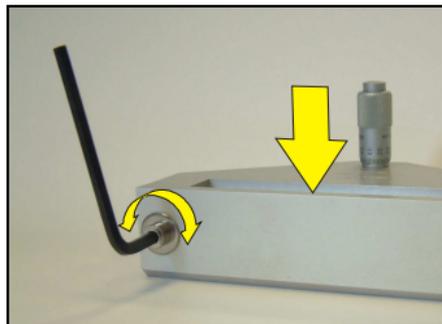
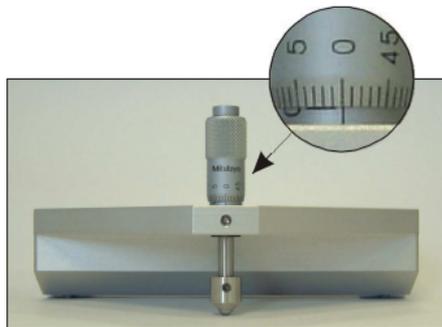
### 2.1 ELCOMETER 3570

1. Place the applicator on a flat surface.
2. Adjust the micrometer to '0' (zero).
3. Loosen the two hexagon screws, press the blade firmly against the flat surface and then tighten the two screws.
4. Adjust the micrometer to the desired gap:

Due to the design of the film applicator, the gap must be multiplied by 10 and this value must then be set on the micrometer.

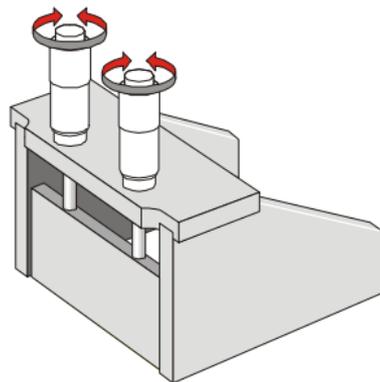
For instance:

- To obtain a gap of 50  $\mu\text{m}$  (2 mils), set the micrometer to 0.5 mm.
- To obtain a gap of 250  $\mu\text{m}$  (10 mils), set the micrometer to 2.5 mm.



## 2.2 ELCOMETER 3580

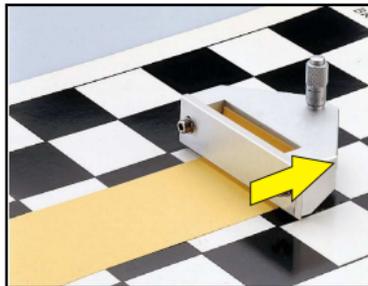
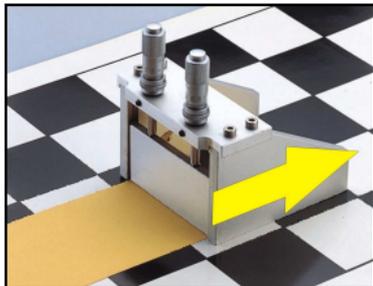
Adjust the micrometers to the desired blade gap. Both micrometers should be set to the same value.



### 3 APPLICATION PROCEDURE

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1. Before each use, check the working surfaces for irregularities and damage.
2. Fix a clean substrate on a flat and horizontal base such as a vacuum table.
3. Place the applicator at one end of the substrate. The applicator should be positioned facing the direction of travel, as shown.
4. *Elcometer 3570*: Pour the product to be applied into the centre of the reservoir.  
*Elcometer 3580*: Pour the product to be applied onto the substrate between the sides of the applicator.
5. Spread the film by moving the applicator towards the opposite end of the substrate at a constant speed.



6. Lift the applicator from the substrate taking care to catch any product dripping from the applicator before it lands on the newly prepared film.

## 4 AFTER APPLICATION

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Clean your film applicator.



Do not use very aggressive solvents or wire brushes, metal scrapers, metal files or other metallic tools for cleaning.



Clean the applicator using a suitable solvent.

After cleaning, ensure that all materials are removed and that the instrument is dry. Use the case provided to store the instrument when it is not being used.

## 5 WET FILM THICKNESS

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The thickness of the film produced by your applicator depends on many factors including;

- the speed of film application,
- applicator blade gap setting,
- surface tension,
- and the viscosity of the product.

## 6 MAINTENANCE

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The Elcometer Film Applicator is designed to give many years reliable service under normal operating and storage conditions.

Regular calibration checks over the life of the micrometer gauges are a requirement of quality management procedures e.g. ISO 9000 and other standards. For checks and certification contact Elcometer or your local supplier.

## 7 TECHNICAL SPECIFICATION

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Material:	Anodised aluminium <sup>a</sup>
Range (3570):	0 $\mu\text{m}$ to 1000 $\mu\text{m}$ (0 mils to 40 mils)
(3580)	0 $\mu\text{m}$ to 6000 $\mu\text{m}$ (0 mils to 236 mils)
Resolution (3570):	1 $\mu\text{m}$ (0.04 mils)
(3580):	10 $\mu\text{m}$ (0.4 mils)

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- a. A stainless steel version of the Elcometer 3580 is also available - contact Elcometer or your Elcometer supplier for details.

## 8 THE ELCOMETER 3570 RANGE

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Model	Width		Part Number
	mm	inch	
Elcometer 3570/1	75	3	K0003570M201
Elcometer 3570/2	100	4	K0003570M002
Elcometer 3570/3	150	6	K0003570M003
Elcometer 3570/4	200	8	K0003570M004

## 9 THE ELCOMETER 3580 RANGE

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Model	Width		Part Number
	mm	inch	
Elcometer 3580/1	50	2	K0003580M201
Elcometer 3580/2	75	3	K0003580M202
Elcometer 3580/3	100	4	K0003580M203
Elcometer 3580/4	125	5	K0003580M204
Elcometer 3580/5	150	6	K0003580M005
Elcometer 3580/6	175	7	K0003580M006
Elcometer 3580/7	200	8	K0003580M007

## **10 RELATED ELCOMETER EQUIPMENT**

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Elcometer produces a wide range of coatings inspection gauges and related equipment.

Users of this Elcometer Film Applicator may also benefit from the following Elcometer products:

- Elcometer Fineness of Grind Gauges
- Elcometer Viscosity Meters
- Elcometer Motorised Film Applicators
- Elcometer Leneta Test Charts
- Elcometer Drying Time Recorders
- Elcometer Washability, Brushability and Abrasion Testers
- Elcometer Hardness Testers

For further information contact Elcometer, your local supplier or visit [www.elcometer.com](http://www.elcometer.com)