

## **Elcometer**

**3520 • 3525 • 3530**

**3540 • 3545 • 3550**

## **Film Applicator**

# **Operating Instructions**

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A copy of this Instruction Manual is available for download on our Website via  
[www.elcometer.com/downloads](http://www.elcometer.com/downloads)

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

The applicator is placed on the substrate and pushed over a sample of the product to produce the film. Your applicator can be pushed by hand or by a motorised film applicator.

The applicator is manufactured from hardened stainless steel.

### **1.1 What the box contains**

- Elcometer Film Applicator
- Storage case
- Operating instructions

Your Elcometer Film Applicator is packed in a cardboard and foam package. Please ensure that all packaging material is disposed of in an environmentally sensitive manner. Consult your local Environmental Authority for further guidance.

## 1.2 Standards

Depending upon model, Elcometer film applicators can be used in accordance with the following National and International Standards:

ASTM D 823-E

## 1.3 These instructions

These instructions describe the operation of the following models of film applicator:

Elcometer 3520 Baker Applicator

Elcometer 3525 Baker Applicator (Adjustable)

Elcometer 3530 Baker Applicator (Adjustable)

Elcometer 3540 Bird Applicator

Elcometer 3550 Bird Applicator

Elcometer 3545 Bird Applicator (Adjustable)

**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.**

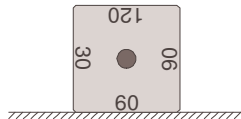
## 2 SELECTING FILM THICKNESS

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Before you apply a film, select the correct film thickness:

### 2.1 NON-ADJUSTABLE MODELS

The numbers engraved on the end face of the applicator indicate the film thickness. Place the applicator with the required thickness in contact with the substrate; the applicator shown below will give a film thickness of approximately<sup>a</sup> 60  $\mu\text{m}$  (2 mils).



### 2.2 ADJUSTABLE MODELS

1. Loosen one of the hexagonal screws or knurled knobs.



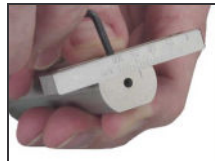
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a. The actual wet film thickness will depend on the behaviour of the wet coating.

2. Slide the foot of the applicator until the mark on the side of the body is aligned with the scale at the thickness required.



3. Tighten the hexagon screw or knurled knob taking care not to disturb the position of the foot of the applicator.



4. Repeat steps 1 to 3 for the opposite side<sup>b</sup>.  
The applicator is now adjusted and ready for use.




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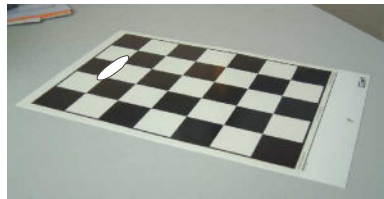
b. Setting different values at each side of the cylinder will result in a wedge-shaped film.

### 3 APPLICATION PROCEDURE

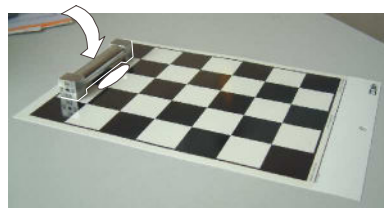
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 Take care while you are using your Elcometer Film Applicator. Damage to the working surfaces will affect the film thickness and the instrument may have to be replaced.

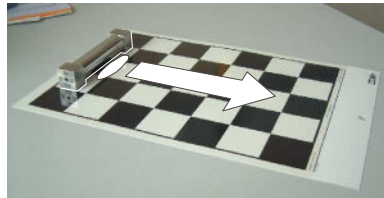
1. Before each use check the working surfaces for irregularities and damage.
2. Fix a clean substrate on a flat and horizontal base (e.g. vacuum table).
3. At one end of the substrate, spread sufficient product over a width slightly smaller than the internal width of the applicator.



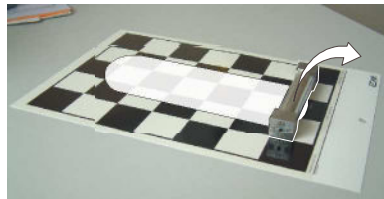
4. Place the applicator onto the substrate behind the product.



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.



After the test, clean your film applicator thoroughly.



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 gauge when it is not being used.

## **4 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,
- the thickness setting of the applicator,
- surface tension,
- and the viscosity of the product.

## **5 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 gauge are a requirement of quality management procedures e.g. ISO 9000 and other standards. For checks and certification contact Elcometer or your local supplier.

## 6 ELCOMETER BAKER/BIRD FILM APPLICATORS

### 6.1 Elcometer 3520 Baker Film Applicators, Non-adjustable

Model	Gaps	Film gaps		Film width		Part number	
		( $\mu\text{m}$ )	(mils)	(mm)	(inch)	Metric	Imperial
3520/1	4	30, 60, 90, 120	1, 2, 3, 4	25	1	K0003520M001	K0US3520M001
3520/2	4	30, 60, 90, 120	1, 2, 3, 4	50	2	K0003520M002	K0US3520M002
3520/3	4	30, 60, 90, 120	1, 2, 3, 4	60	2.5	K0003520M003	K0US3520M003
3520/4	4	30, 60, 90, 120	1, 2, 3, 4	75	3	K0003520M004	K0US3520M004
3520/5	4	30, 60, 90, 120	1, 2, 3, 4	100	4	K0003520M005	K0US3520M005
3520/6	4	30, 60, 90, 120	1, 2, 3, 4	125	5	K0003520M006	K0US3520M006
3520/7	4	30, 60, 90, 120	1, 2, 3, 4	150	6	K0003520M007	K0US3520M007
3520/11	4	30, 60, 90, 120	1, 2, 3, 4	175	7	K0003520M011	K0US3520M011
3520/8	4	30, 60, 90, 120	1, 2, 3, 4	200	8	K0003520M008	K0US3520M008
3520/9	4	30, 60, 90, 120	1, 2, 3, 4	250	10	K0003520M009	K0US3520M009

**6.2 Elcometer 3525/3530 Baker Film Applicators, Adjustable**

Model	Gaps	Film gaps		Film width		Part number	
		( $\mu\text{m}$ )	(mils)	(mm)	(inch)	Metric	Imperial
3525/1	1	0 to 100	0 to 4	50	2	K0003525M001	K0US3525M001
3525/2	1	0 to 100	0 to 4	75	3	K0003525M002	K0US3525M002
3525/3	1	0 to 100	0 to 4	100	4	K0003525M003	K0US3525M003
3525/4	1	0 to 100	0 to 4	150	6	K0003525M004	K0US3525M004
3525/5	1	0 to 100	0 to 4	200	8	K0003525M005	K0US3525M005
3525/6	1	0 to 100	0 to 4	250	10	K0003525M006	K0US3525M006
3530/1	1	0 to 250	0 to 10	50	2	K0003530M001	K0US3520M001
3530/2	1	0 to 250	0 to 10	75	3	K0003530M002	K0US3530M002
3530/3	1	0 to 250	0 to 10	100	4	K0003530M003	K0US3530M003
3530/4	1	0 to 250	0 to 10	150	6	K0003530M004	K0US3530M004
3530/5	1	0 to 250	0 to 10	200	8	K0003530M005	K0US3530M005
3530/6	1	0 to 250	0 to 10	250	10	K0003530M006	K0US3530M006

### 6.3 Elcometer 3540/3550 Bird Film Applicators, Non-adjustable

Model	Gaps	Film gaps		Film width		Part number	
		( $\mu\text{m}$ )	(mils)	(mm)	(inch)	Metric	Imperial
3550/1	1	50	2	50	2	K0003550M001	K0US3550M001
3550/2	1	50	2	75	3	K0003550M002	K0US3550M002
3550/3	1	50	2	150	6	K0003550M003	K0US3550M003
3550/1	1	75	3	50	2	K0003550M201	K0US3550M201
3550/2	1	75	3	75	3	K0003550M202	K0US3550M202
3550/3	1	75	3	150	6	K0003550M203	K0US3550M203
3540/1	4	50, 100, 150, 200	2, 4, 6, 8	50	2	K0003540M001	K0US3540M001
3540/2	4	50, 100, 150, 200	2, 4, 6, 8	75	3	K0003540M002	K0US3540M002
3540/3	4	50, 100, 150, 200	2, 4, 6, 8	100	4	K0003540M003	K0US3540M003
3540/4	4	50, 100, 150, 200	2, 4, 6, 8	150	6	K0003540M004	K0US3540M004
3540/5	4	50, 100, 150, 200	2, 4, 6, 8	200	8	K0003540M005	K0US3540M005
3540/6	4	50, 100, 150, 200	2, 4, 6, 8	250	10	K0003540M006	K0US3540M006

## 6.4 Elcometer 3545 Bird Film Applicators, Adjustable

Model	Gaps	Film gaps		Film width		Part number	
		( $\mu\text{m}$ )	(mils)	(mm)	(inch)	Metric	Imperial
3545/1	1	0 to 250	0 to 10	50	2	K0003545M201	K0US3545M201
3545/2	1	0 to 250	0 to 10	75	3	K0003545M002	K0US3545M002
3545/3	1	0 to 250	0 to 10	100	4	K0003545M203	K0US3545M203
3545/4	1	0 to 250	0 to 10	125	5	K0003545M004	K0US3545M004
3545/5	1	0 to 250	0 to 10	150	6	K0003545M005	K0US3545M005
3545/6	1	0 to 250	0 to 10	175	7	K0003545M006	K0US3545M006
3545/7	1	0 to 250	0 to 10	200	8	K0003545M007	K0US3545M007
3545/8	1	0 to 250	0 to 10	250	10	K0003545M008	K0US3545M008

## 7 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)