
Thank you for your purchase of this Biuged Film Applicator. Welcome to Biuged.

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

This Biuged 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 Biuged. For more information visit our website at www.biuged.com

1.0 ABOUT THIS INSTRUMENT

1.1 Description

The Biuged 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 motorized film applicator.

The applicator is manufactured from hardened stainless steel.

1.2 What the box contains

- Biuged Film Applicator
- Storage case
- Operating instructions

Your Biuged Film Applicator is packed in a plastic 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.

1.3 Standards

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

ASTM D 823-E

1.4 These instructions

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

BGD 201 One-sided Applicator

BGD 202 Two-sided Applicator

BGD 203 Cube Applicator

BGD 204 Four-sided Applicator (Frame-Type)

BGD 205 Four-sided Applicator (Long-Type)

BGD 206 Four-sided Applicator

BGD 208 Eight-sided Applicator

2.0 OPERATION

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

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

Kindly note: the numbers engraved on the end face of the applicator indicate the Gap depth, not film thickness. Generally speaking, the fact film thickness after applying is nearly half of Gap depth.

Place the applicator with the required thickness in contact with the substrate; the applicator shown below will give a Gap depth is 60 and the wet film thickness of approximately 30 μm (1 mils).

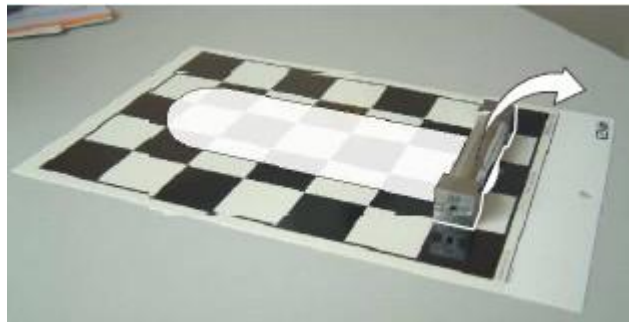
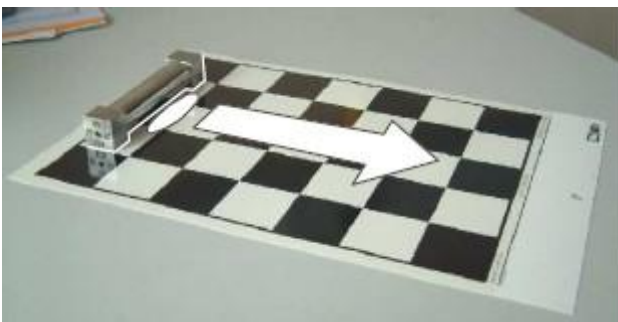
2.1 APPLICATION PROCEDURE

Take care while you are using your Biuged 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.



NOTE:

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.

- ⑦ 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.

3.0 WET FILM THICKNESS

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.

4.0 MAINTENANCE

The Biuged 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 Biuged or your local supplier.

5.0 TECHNICAL SPECIFICATION

Material: Corrosion-resistance Stainless Steel

TYPE	GAPS (μm)	FILM WIDTH (mm)	TOTAL LENGTH (mm)	TYPE	GAPS (μm)	FILM WIDTH (mm)	TOTAL LENGTH (mm)
BGD 201/1	25	100	128	BGD 203/2	75-150	12.7	25
BGD 201/2	37.5	100	128	BGD 204/1	5-10-15-20	80	100
BGD 201/3	50	100	128	BGD 204/2	25-50-75-100	80	100
BGD 201/4	75	100	128	BGD 204/3	50-100-150-200	80	100
BGD 201/5	100	100	128	BGD 204/4	30-60-90-120	80	100
BGD 201/6	125	100	128	BGD 205/2	25-50-75-100	160	190
BGD 201/7	150	100	128	BGD 205/3	50-100-150-200	160	190
BGD 201/8	200	100	128	BGD 205/4	30-60-90-120	160	190
BGD 201/9	250	100	128	BGD 205/5	100-200-300-400	160	190
BGD 201/10	300	100	128	BGD 205/6	50-75-100-150	160	190
BGD 201/11	350	100	128	BGD 205/7	100-150-200-250	160	190
BGD 201/12	400	100	128	BGD 205/8	250-500-750-1000	160	190
BGD 201/13	450	100	128	BGD 206/1	5-10-15-20	80	100
BGD 201/14	500	100	128	BGD 206/2	25-50-75-100	80	100
BGD 201/15	600	100	128	BGD 206/3	50-100-150-200	80	100
BGD 202/1	25-50	80	100	BGD 206/4	30-60-90-120	80	100
BGD 202/2	75-100	80	100	BGD 206/5	100-200-300-400	80	100
BGD 202/3	150-200	80	100	BGD 206/6	50-75-100-150	80	100
BGD 202/4	300-400	80	100	BGD 206/7	100-150-200-250	80	100
BGD 203/1	37.5-75	12.7	25	BGD 206/8	250-500-750-1000	80	100

BIUGED INSTRUMENTS

www.biuged.com



BGD 208/1	0.5-1-1.5-2-3-4 -5-6 mils	80	100	BGD 208/2	1-2-3-4-5-6-7-8 mils	80	100
BGD 208/3	5-10-15-20-25- 30-40-50 mils	80	100				

6.0 RELATED BIUGED EQUIPMENT

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

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

- Biuged Fineness of Grind Gauges
- Biuged Motorized Film Applicators
- Biuged Test Charts
- Biuged Drying Time Recorders
- Biuged Washability, Brushability and Abrasion Testers
- Biuged Hardness Testers

7.0 TECHNICAL SPECIFICATION/PRECISION ERROR

Working face specifications and groove clearance accuracy			
$5 \pm 3 \mu m$	$10 \pm 4 \mu m$	$15 \pm 4 \mu m$	$20 \pm 4 \mu m$
$25 \pm 4 \mu m$	$50 \pm 4 \mu m$	$75 \pm 5 \mu m$	$100 \pm 5 \mu m$
$150 \pm 5 \mu m$	$200 \pm 5 \mu m$	$250 \pm 5 \mu m$	$300 \pm 5 \mu m$
$500 \pm 7 \mu m$	$750 \pm 7 \mu m$	$1000 \pm 12 \mu m$	

For further information contact Biuged, your local supplier or visit www.biuged.com

When there are differences between the actual products and the pictures of the instruments, the actual products shall prevail. Please download the latest instructions on the official website.