

# Automatic Film Applicator (310 mm) ; including vacuum bed

## BGD 218-1S

### Product Description

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The Automatic Film Applicator enables experimental chemists to conveniently draw down precise coating films on various substrates, reducing and eliminating errors caused by manual operation. The main factors affecting the drawdown are the shear rate and the downward force applied to the applicator tool. This instrument significantly improves the reproducibility of paint films.

We offer a full range of automatic film applicators. Models BGD 218-1S and BGD 218-2S feature a vacuum bed, while the BGD 218-3 offers additional heating ideal for highly viscous products. Our automatic film applicator BGD 219-S, equipped with a holding device, is designed with a glass drawdown bed instead of a vacuum bed, as used in the BGD 218 series. It is primarily intended for applying films on hard substrates such as metal or glass.



### Technical Specification

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- Wide-range stepless speed regulation: 5 mm/s – 500 mm/s
- High-precision linear guides ensure more stable drawdown speeds
- The push rod automatically adapts to substrates of different thicknesses (0–20 mm)
- The substrate clamping fixture can be repositioned according to test panel dimensions, accommodating various substrate sizes
- Detachable platform design for easy replacement and cleaning of different platforms
- A well-designed coating film holder simplifies operation and allows flexible load capacity expansion to support easily bendable test panels
- Freely adjustable starting point, suitable for substrates of various sizes
- Compatible with all Solvica applicators and wire bars of different types and sizes
- Improved repeatability of film application:
  - For BGD 218: A specially machined, high-precision vacuum suction plate (overall flatness < 5 µm) with surface hardening ensures smooth and secure adhesion of all substrate types
  - For BGD 219: A precision-machined glass plate (overall flatness < 20 µm), which is easy to clean
- Optimized vacuum plate design ensures uniform suction distribution (BGD 218 only)
- External vacuum pump eliminates vibration from the traditional built-in structure (BGD 218 models only)

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### Main Technical Parameters

Model	BGD 218-1S	BGD 218-2S	BGD 218-3	BGD 219-S
Method of fixing substrate	Vacuum adsorption			Clamp
Application Platform	Hard anodic oxidation aluminium with vacuum holes			Glass
Draw down bed size (mm)	340 x 250	470 x 250	360 x 250	340 x 250
Draw down vacuum bed size with holes (mm)	290 x 190	410 x 190	290 x 190	N/A
Max. Application Length (mm)	310	430	250	310
Application distance	Freely settable		25-50-75-100%	Freely settable
Adjustable Draw Down Speed	5mm/s~500mm/s			
Carriage holder weight	500g x pcs (1kg or 1.25 kg is optional)			
Total power	370W		750W	50W
Temperature Range	-		RT+5°C~100°C	-
Temperature Uniformity	-		±5°C	-
Power Source	220V/50Hz			
Weight (kg)	26	35	42	25
Overall size, excluding vacuum pump LxWxH (mm)	500x360x340	690x360x230	500x345x340	560x360x230

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## **Ordering Information**

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## **Accessories**

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- BGD 206 series - BGD 206 - Four-sided applicators - 80 mm width
- BGD 205-Series - BGD 205 - Four-sided applicators - 160 mm width
- BGD 212 Series - BGD 212 Wire Bar Coaters: Width 200mm, Ø10mm
- BGD 214 Series - BGD 214 Formed Rods: Width 200 mm

## **Disclaimer**

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