

AUTOMATIC FILM APPLICATOR

AB3120, AB3220, AB3320, AB3400, AB3125, AB 3225, AB3325, AB3405

DATASHEET

PRODUCT DESCRIPTION

The TQC Automatic film applicator provides a reliable basis to apply coating films to test charts, panels or foils in a uniform and reproducible way in order to eliminate variations caused by human factors. Variations in speed, pressure and direction of draw down cause irregularities. Other factors that may influence the result are the shear rate and the weight of the applicator. With the TQC Automatic film applicator these variable factors are being stabilised. Over the complete surface the film thickness is even. Samples created with the TQC Automatic film applicator are reproducible. It's possible to produce a large number of identical

laboratory precision draw downs in a short period of time. The quality of the applied film is important for research on rheological properties of the applied media. To prepare samples for testing rheological properties, abrasion resistance, hiding power and gloss the TQC Automatic film applicator is a must have. Multiple types of automatic film applicators are available for either glass/paper/metal substrates or foils. All models can be used in combination with either standard block type film applicators such as bird/baker models, or spiral bar type film applicators (wire wound rod type) depending on the configuration chosen.

**BUSINESS**

Coating Laboratories, Paint Production, Surface Finishing, Powder Coating

FEATURES**Automatic test chart clamp**

Test charts are fixed automatically (when no vacuum bed is used) and also released automatically when the process is finished. This eliminates two steps in the process and the operator does not need to bend over the machine to reach for a clamp.

Easy to clean ultra plane glass bed

Easy to clean ultra plane glass bed with models AB3120 and AB3125

Vacuum bed with built in vacuum pump

Vacuum bed with built in vacuum pump with models AB3220, AB3225, AB3320 and AB3325.

Complete with 2 electronically controlled vacuum area's of DIN A3 and DIN A4* size.

*A4 only for AB3220 and AB3225.

Removable bed for easy cleaning and maintenance

The open structure of the back of the vacuum bed ensures the vacuum holes can be cleaned at all times.

Automatic bar coaters storage device

This positions the bar coaters on a holder at the end of the test chart. The traverse will retract automatically after the application of the film. This eliminates another two steps in the process and generates important time savings.

Flexible

The machine is suitable for all types of applicators. Set-up of length and speed is adjustable in any way the operator chooses while a pre-selection of popular settings is programmed for quick setup.

Wide speed range

Wide speed range of 2 to 500 mm/sec.

Extensive operator safety features

Besides an emergency stop button the machine is equipped with intelligent hand-detectors at the side which will stop the machine immediately when body parts are in immediate proximity of the moving traverse. TQC automatic film applicators comply with directive 2006/42/EG on machinery.

Solid support feet

Extremely robust adjustable feet that guarantee a stable position of the machine to prevent external disturbances.

Menu driven

All settings are made digitally through the multi-lingual menu-driven human interface that offers an intuitive operation using a convenient jog/dial switch. This eliminates the use of a manual.

Operator orientation saves counter space

Display and buttons are located on the short side of the applicator.

Illuminated

To illuminate the working area a flexible light of 5W warm white LED's is standard supplied.

Silent

The integrated vacuum pump of the TQC film applicators is fitted with silencers which decrease the sound level without vacuum from 81 dBa to 66dBa. With the chart in position and vacuum in place the level is 60 dBa.

APPLICATION AREA'S

- Rotogravure / flexo printers for testing of inks and surface coating.
- Liquid inks manufacturers for testing of ink shades / strength and coating.
- Surface coating, metal decorating and picture varnish manufacturers.
- Paper and boards mills, for checking coatings and varnishability of coated paper and board.
- Paint, resins, lacquers, adhesives, dyes and pigment manufacturers.
- Photographic paper, cosmetics and ceramic coolers. Textile printing for testing of colour shades / prints.

Draw down can be made on variety of substrates such as plastic films, paper, board metalized films, metal plates, foil and textiles etc.

SCOPE OF SUPPLY

- Motorised automatic film applicator (one of the available models)
- Rubber placemat (only with glass plate)
- Certificate of Conformance
- English manual
- Power cord

MODELS

AB3120	TQC motorised automatic film applicator 230V with glass bed and combined attachment assembly for standard block applicators and wire bar coaters.
AB3220	TQC motorised automatic film applicator 230V with perforated vacuum bed, built-in vacuum pump and combined attachment assembly for standard block applicators and wire bar coaters.
AB3320	TQC motorised automatic film applicator 230V with double channelled vacuum bed, built-in vacuum pump and combined attachment assembly for standard block applicators and wire bar coaters.
AB3125	TQC motorised automatic film applicator 110V with glass bed and combined attachment assembly for standard block applicators and wire bar coaters.
AB3225	TQC motorised automatic film applicator 110V with perforated vacuum bed, built-in vacuum pump and combined attachment assembly for standard block applicators and wire bar coaters.
AB3325	TQC motorised automatic film applicator 110V with double channelled vacuum bed, built-in vacuum pump and combined attachment assembly for standard block applicators and wire bar coaters.
AB3400	TQC motorised automatic film applicator 230V with heated perforated vacuum bed, built-in vacuum pump and combined attachment assembly for standard block applicators and wire bar coaters.
AB3405	TQC motorised automatic film applicator 110V with heated perforated vacuum bed, built-in vacuum pump and combined attachment assembly for standard block applicators and wire bar coaters.

OPTIONAL ITEMS

All types and styles of applicators can be used such as wire wound rods or spiral bar coaters, doctor blades. Bird-, or Baker type applicators, Quadruplex, or film casting knife applicators.

AB3500 - TQC Drying time recorder tool (Only suitable for models with firmware version 2.01 or above)

TECHNICAL SPECIFICATIONS

Automatic Film Applicator

Traverse Speed:	2 – 500 mm/s
Traverse Speed accuracy:	+/- 1% of set speed
Stroke length:	50 – 359 mm
Stroke length accuracy:	+/- 2 mm
Max test chart size:	DIN A3
Max test substrate thickness:	35mm including applied coating
Max. Width alternative film applicators:	max. 300 mm
Max. Height alternative film applicators:	max. 80 mm
Wire bar length:	max. 325 mm spiral area in 364 mm length at fixation points.
Wire bar diameter:	max. Ø10 mm at the fixation points.
Max vacuüm:	-178 mbar
D x W X H	650 x 350 x 240 mm
Net weight:	kg – 36 kg dependent on model
Power Supply:	115 – 230 V, 50 - 60 Hz
Power consumption:	max. 80 Watt

Display:	Blue Illuminated, graphic 100 x 35 mm, 193x64 pixels
Safety:	Emergency Button and intelligent proximity switches, integrated Acoustic Alarm
Function:	Jog Shuttle knob by Rotation / Pushing
Drawn down Speeds:	12 steps selectable from 2 - 500 mm/s. and free selectable (custom)
Drawn down Lengths:	A5 / A4 / A3 and free selectable (custom with variable starting/stopping point)

Heated perforated vacuum bed

Minimum temperature:	Ambient + 5°C
Maximum temperature:	Ambient + 100°C (Absolute max 140°C)
Resolution of set temperature:	1°C
Resolution of readout temperature:	0.1°C
Temperature controller:	Separate
Power consumption heating:	450 Watt
Power Supply:	230V, 50Hz

Drying Time Recorder

Drying time range:	1 min. – 2880 min (48 hours).
Time accuracy:	≤ 1% of set time.
Maximum test length:	350mm
Maximum number of tracks:	8

SPECIAL CARE

- Though robust in design, this instrument is precision-machined. Never drop it or knock it over
- Always clean the instrument after use.
- Clean the instrument using a soft dry cloth. Never clean the instrument by any mechanical means such as a wire brush or abrasive paper. This may cause, just like the use of aggressive cleaning agents, permanent damage.
- Do not use compressed air to clean the instrument.

SAFETY PRECAUTIONS

- Not suitable to be put in the sun or in the high light
- Avoid using it in over-high or over-low temperature environment
- Avoid humidity
- Always make sure the instrument is connected to an earthed electric socket.
- Always make sure the instrument's power is turned off while adjusting any electric component

DISCLAIMER

The right of technical modifications is reserved.

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we

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