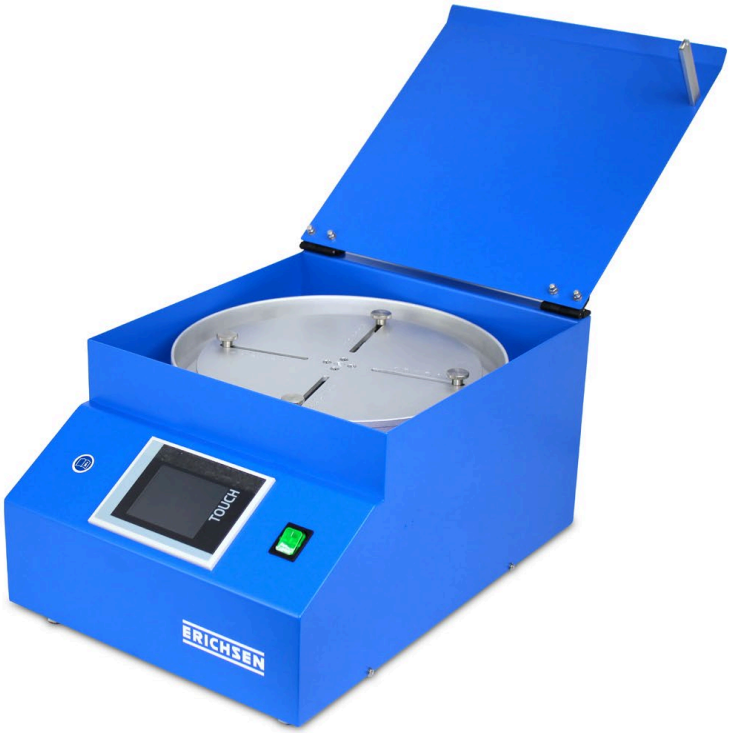
Centrifugal Film Applicator Model 334 Smart



testing equipment for quality management

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Technical Description

unequalled accuracy

Even application of coating defined film thickness

Applies coatings of even thickness on specimen panels

Purpose and Application

The **Centrifugal Film Applicator, Model 334 Smart,** applies coatings of even thickness on **s**pecimen panels with a length of side from 80 to 200 mm, for test purposes. The advantages of this method of application are economical (saving in time) and in the unequalled accuracy and reproducibility. The equipment is particularly of interest where a high level of consistency in film thickness or extremely thin coating layers are required.

Viscosity (mPas)	Speed of rotation (min^{-1})	Time of application (s)	Thickness (µm)
1000	300	30	80
1000	600	15	80
1000	600	30	40
1000	600	60	30
1000	1500	30	20
100	300	30	40
100	600	15	40
100	600	30	20
100	600	60	15
100	1500	30	10

Guidance Figures for Speed of Rotation and Time of Application

Design and Function

The **Centrifugal Film Applicator, Model 334 Smart,** is a bench mounted instrument, consisting of a sheet metal housing, operator's control panel, specimen holder with collecting trough and protective hood.

The speed of rotation and the application time are continuously variable between 100 - 2,000 min-1 and 0 - 999 s. The selected speed is shown on a display instrument.
At the end of the preset centrifugation time the applicator switches off automatically and the specimen can be taken out of the holder. For reasons of safety, the protective hood cannot be lifted to remove the specimen until the rotating specimen holder has come to a complete standstill.
The specimen holder and the collecting trough are removable for easy cleaning.

Application Method

The specimen panel to be coated is centred and positioned with 4 locating screws. With fragile specimens, e.g. of thin glass, it is advisable to use the glass plate attachment, which is available as an accessory.

This is also generally suitable for specimen thicknesses between 1 mm and 3 mm. Thanks to the fixed centring feature which is set to the specimen format it is particularly time-saving when applying series coatings.

An adequate quantity of coating material (5 - 10 g) is poured onto the centre of the specimen, which is then made to rotate at a preset speed, and for a selected period of time.
Optimum application conditions depend on the viscosity, or more accurately on the flow properties, density and solid content of the coating material. Approximate values are shown in the chart.
The centrifugal force acting on the coating material causes this to be spread evenly across the specimen panel. Surplus coating material is thrown off the edge and collected in the surrounding trough. The coating applied in this way does not vary with distance from the centre of rotation, i.e. it is even over the entire area.
Only in the case of thixotrope paints is there a possibility that the film thickness will vary, tapering to greater thickness towards the middle.

Subject to technical modifications.

Group 8 - TBE 334 Smart – V/2021

Technical Data

Basic instrument

Dimensions:	Width	320 mm
	Depth	450 mm
	Height	240 mm
Net weight:		approx. 18 kg
Power supply:		100 - 240 V / 50-60 Hz
Speed of rotation:		100 - 2.000 min^{-1}
Time of application:		0 - 999 s

Test panels

Length of sid:	min. 80 mm max. 200 mm
Material thickness:	
Metal plates	max. 1,25 mm
Glass plates	max. 3,00 mm
Wooden plates	max. 4,00 mm

Paint consistency

Viskosity:	0,01 - 20 Pas

Order Informations	
Order No..	**Product-Description**
00920331	**Centrifugal Film Applicator, Model 334 Smart**
Including: ♦ Connection cable ♦ Manual	

Accessory	
Order No.	**Product-Description**
06840132	Glass plate attachment

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