

# Spin Coater

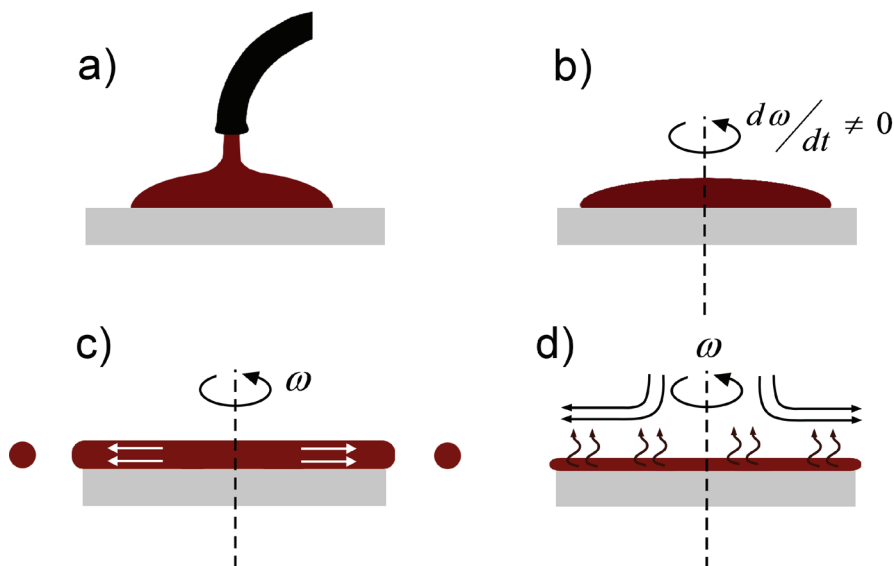
Spin coating method is widely used for forming a thin film onto the rotating substrates by applying a specific amount of coating solution manually (e.g. using a syringe) or automatically. Substrate is rotated at high speed in order to make the coating solution spread on the substrate as a result of centrifugal force. The rotation will continue until the desired thickness of a film is achieved. The speed of rotation determines the thickness of coated layer. Keeping the speed constant during the spin coating process, plays a crucial role in the formation of a homogenous layer.

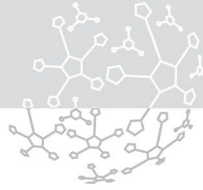


**In other words, spin coating consists of following stages:**

- Deposition of the coating onto the substrate using a nozzle/ spray, etc.
- Acceleration of the substrate rotation speed to the desired level.
- Spinning of the substrate at a constant rate- fluid viscous forces dominate fluid thinning behavior
- substrate spinning at a constant rate - solvent evaporation dominates the coating thinning behavior

Most substrates can be spin processed, including wafers, microscope slides, photomasks.





### Advantages

- Thickness homogeneity
- Short coating times (a few seconds per coating)
- Simple and easy operation
- Minimal edge effect

### Specification

Input Voltage	220 AC
Power DC	24 V
Min Rate	800 rpm
Max Rate	9000 rpm
Rate Tolerance	±30 rpm
Coating Time	Up to 500 s
Dimension	26×38×32 cm
Weight	16 Kg
Monitoring	Digital

### Application

- Photoresist layers for patterning wafer in microcircuit production
- Insulating layers for microcircuit fabrication
- Flat screen display coatings
- Antireflection coatings and conductive oxide
- DVD and CD ROM
- Sensors
- Field-effect transistors
- LEDs