# SPIN COATER



#### Highlights

- Direct Drive Motor
- DSP based PID loop control
- Completely digital technology
- Built-in Safety features
- 8 Segment program memory
  - Large 8 inch bowl
  - User-friendly key operation
  - Nitrogen purgefacility
    Tefler costed (Arediced be)
  - Teflon coated / Anodised bowl
  - PC Interface option
  - Touch Screen model available

This is a technically advanced Spin Coater system comprising a sturdy dc motor with encoder. The motor speed is controlled by a 16 bit DSP microcontroller running a PID loop for higher speed stability. The speed of the disk can be linearly with the user selected ramp rate. You can define the Speed profile with the required Acceleration, dwell and deceleration values and store into a non-volatile memory. You can store up to eight such programs and simply recall any program to run it. At the end of the program, the inbuilt timer automatically stops the spinning. The user interface is very friendly and easy to use. There are sensors to detect vacuum pump fault and motor fault to provide safety. This spin coating machine is very compact and sleek and can be installed on a tabletop.

## **TECHNICAL SPECIFICATIONS**

Model	SC12K-TS	SC10K	SC8K
Spin Speed	200 -12000	200 -10000	500 -8000
Display	4.3 inch touch screen	2x16 LCD Display	7 segment LED
Motor Control	PID Controller	PID Controller	PID Controller
Speed Regulation	<0.2%	<0.2%	<0.2%
Program Memory	10 programs	100 programs	8 programs
Speed Profile	Speed, Duration and Dwell	Speed, Duration and Dwell	Speed, Duration and Dwell
Ramp Timer	10 sec to 1200 sec	10 sec to 1200 sec	10 sec to 1200 sec
Dwell Timer	10 sec to 1200 sec	10 sec to 1200 sec	10 sec to 1200 sec
Disk Diameter	80 mm	80mm	80mm
Sample Size	Upto 75mm	Upto 75mm	Upto 75mm
Bowl Type & Size	PP bowl 170mm ID	PP bowl 170mm ID	PP bowl 170mm ID
Sample Holder	Polished aluminum disk with Silicone Rubber top or PTFE disk	Polished aluminum disk with Silicone Rubber top or PTFE disk	Polished aluminum disk with Silicone Rubber top or PTFE disk
Sample Mounting	Vacuum holding	Vacuum holding	Vacuum holding
Vacuum Connector	8mm dia Snap-in hose connector	8mm dia Snap-in hose connector	8mm dia Snap-in hose connector
N <sub>2</sub> Purge Connector	6mm dia Snap-in hose connector	6mm dia Snap-in hose connector	6mm dia Snap-in hose connector
Acrylic Lid	Provided	Provided	Provided
Dimension (mm)	400(D) 300(W) 250(H)	400(D) 300(W) 250(H)	400(D) 300(W) 250(H)
AC Input / Power	230V, 40VA	230V, 40VA	230V, 40VA

### **DISPLAY INDICATIONS**

RPM / Status / Time	2x16 LCD Display (SC10K) LED 7 segment display (SC8K) 4.3 inch color touch screen display (SC12KTS)
Lid Closed	Green LED
Spin On	Green LED
Lid Fault	Red LED
Motor Fault	Red LED

An external vacuum pump should be connected to start spin coating through push-In 8mm connector on the back panel.

**Lidfault:** In case there is any accidental opening of lid, the motor immediately stops. An LED indicator indicates Lid fault condition. Once the Lid closes, the program can be restarted.

**Motor Fault :** If the DC motor fails due to overload, then the dc supply to the motor is shut off, thereby providing safety to the control electronics. An LED indicator glows to indicate the motor fault condition.

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