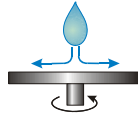


## Introduction

Dear Customer,



Thank you for deciding on our Spin Coater. You have chosen a high quality product to simplify your preparatory tasks in the laboratory. Due to its sophisticated technology, the Spin Coater, a tool for producing a film of substances for the investigation of many physical problems, is in great demand.

Your Spin Coater has been built using the most modern production technology and conforms to all German and European regulations and guidelines. In order to maintain the working condition of the device, we urge the user to consult the user manual.

## Intended use

The intended use of the device is to produce thin and ultra thin layers through Spin Coating by way of radial centrifugal coating of test substances on a rapidly rotating sample carrier.

Using the device for any purposes other than that stated could be dangerous and lead to a short-circuit, fire, etc. The device may not be opened, altered or adapted in any way.

## Included in delivery

The delivery will include: the Spin Coater with a standard rotating table, a wall power supply specific for the country of use, a vacuum hose with quick coupling and this users manual.

## Safety Instructions

Damage caused by disregarding the instructions in this manual invalidate the guarantee. We accept no liability for any damage as a result of misuse.

We assume no liability for personal injury or damage to property caused by improper operation or by neglecting the safety instructions.

For safety and licencing reasons, adaptation or alterations to the device are not authorised. The exception being the changing of rotating tables when the device is approved and delivered by us.

The Spin Coater must be supervised when in use and unplugged when not in use.

In order to avoid the excessive movement of test substances the device must **only be run with the protection cap in place**. The user must also wear suitable **eye protection** (closed glasses/goggles) and **body protection** (lab coat).

This device is not a toy and should be kept away from children.

The Spin Coater is only intended for indoor use.

Ensure that all safety at work guidelines and regulations are followed when using the device with explosive, flammable, toxic, allergenic or other dangerous substances.

Under no circumstances must a damaged, faulty or altered device be used and must be sent to the dealer or manufacturer for investigation and repair. This also includes the mains cable, the rotating table and other specific equipment.

## Maintenance Advice

Within the Spin Coater and the mains cable are no parts that may be maintained by the user.

Surplus coating material will be collected in the PTFE cap and the stainless steel tray. Both parts are to be cleaned when necessary to avoid the substance spilling into the working parts of the device.

Only use the device with the mains adapter supplied.

To avoid the suction of coating material into the drive mechanism please use chucks, which are preferably covered completely by the samples. In this way one can also maximize the holding force.

## Environmental Notice

Disposal of unusable devices is to be done according to the correct manner or to be sent to the manufacturer for disposal.

Please make your contribution to protecting our environment!

## Guarantee and Service Conditions

We deliver a fully functional Spin Coater with a guarantee of two years. Within this time period, faults will be repaired or the product exchanged at the discretion of the manufacturer. An extension of the guarantee after this even is not possible. Damage caused by improper use of the device or use of aggressive samples and coating substances is not covered under the guarantee.

Should there be no qualified information as to the dangerousness of the test substance used on the device, a repair cannot take place.

## Production of Thin Layers

The production of thin layers can be done in two possible ways:

1. Apply a small amount of coating material on the substrate and start the motor at the predefined speed. The table is accelerated at the given speed and excess substance is centrifuged.

or

2. Apply coating material on the substrate while the motor is running.

Both procedures require that the plate rotates until dry, depending on the application with constant, increasing or decreasing speed.

## Operation of the Spin coater SCE-150 and SCC-200

Place the Spin Coater on a stable, level base. Don't forget to check that the supply voltage and the operational voltage of the mains adapter are suitable. Plug the mains cable into the mains. Insert the low voltage plug into the correct socket on the back of the Spin Coater. The operational readiness of the device can be seen by the active LC display and the green illuminated LED.

The individual menu items can be shown on the display by turning the menu dial and confirmed by pressing it. The faster the dial is turned, the faster the values are changed. The motor is started by confirming the command START, the colour of the LED changes from green to red and the text from START to STOP.

By pushing the dial again, the program sequence can be stopped any time, the red LED only changes back to green, however, after the engine has reached a complete standstill.

Up to ten different speeds can be predefined and saved on the SCC device, which may consist of two speed increases or decreases and two speed plateaus. All settings can be programmed to be up to 600 seconds long. At the SCE device there is only one ramp and no storage function.

Arrows on the display show the current progress of the sequence. The motor speed is displayed in rps (revolutions per second) and is updated after every revolution. The motor speed can be regulated +/- 1 rps with the controller. The oscillation change occurs almost instantaneously, it does, however, depend on the plate and sample size as well as other external variables.

After completion of the sequence or upon initiating the STOP command, the motor gradually reaches a standstill. Again, this process depends on the inertia caused by the combination of the rotor, the plate and the sample and cannot be electronically managed.

```
START____SET____P_1
-----
200rps__600s^___10s▶
10rps__10s▼___10s▶
```



The fixing of the sample for the devices is carried out by an active vacuum pump. The vacuum pump can be connected by way of a quick release coupling on the back of the device, the sample will then be held in place during the coating process.

Fig.: SCC-200

## Accessories

Suitable chucks can be ordered from your distributor. The chucks can be removed from the motor shaft vertically. A miniature vacuum pump used to fix the test substrates up to a mass of 500mg can also be found in the product range.