

# SPEEDY

## Solid Phase Extraction System



Speedy is an automatic system for Solid Phase extraction and filtration using the 96 well format or cartridges (3 to 10 ml). With 4 independent probes, Speedy automatically conditions and washes the sorbent by adding the reagents through the probes and applying a controlled vacuum to the sorbent or filtration block. The samples are pipetted by the probes from tubes, microplates or any other sample container, directly or after dilution on top of the separation material. They are processed with positive pressure (nitrogen, compressed air) through the well under a user-defined and software-controlled flow rate and are collected in a 96-well receiving plate. Hence, Speedy can handle difficult sample materials (viscous samples, sera, plasma, cell culture materials) automatically and reproducibly. The variability of the flowrate provides optimum separation conditions.

For high sample throughput, Speedy can be supplied with 2 vacuum stations, and an integrated handler, exchanging automatically separation blocks and receiving plates. A fast delivery 6-way-valve (option) supplies all the necessary solvents from outside to keep the workbench free from solvent bottles. Speedy is controlled by a sophisticated, but easy to operate Windows®-NT software. The user can define the workbench by adding and creating new racks and develop their own separation methods and programmes with simple "mouse-clicks".

The high throughput makes Speedy an ideal tool in High Throughput Screening (HTS), Combinatorial Chemistry and diagnostic applications.

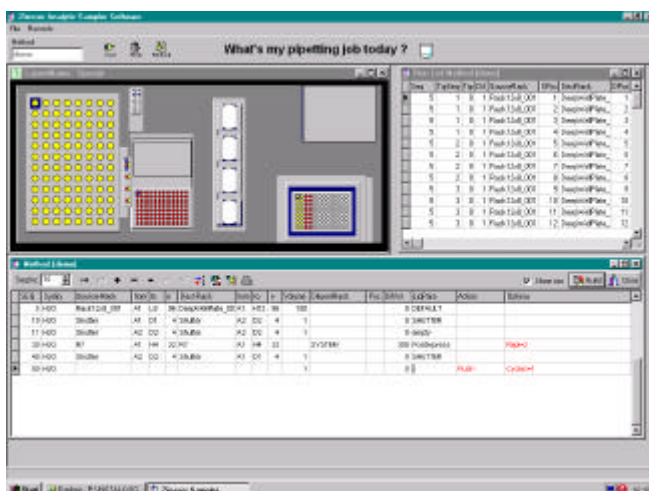
## Application

Speedy is a liquid handling system for Solid Phase extraction and filtration utilising the 96-well microplate format.

Distribution and dilution from tube to tube, tube to microplate or similar sample containers, microplate to microplate, distribution of nitrogen, compressed air and vacuum etc.

## Software

32-bit WinLissy-Software unter Windows® NT



## Liquid Handling

4 probes with variable spacing from 9 to 38 mm. Each is connected to its own syringe pump, which can be equipped with syringes from 250  $\mu$ l to 5ml.

## Precision and Accuracy

High pipetting precision better than 1% at 10% syringe volume. Minimum pipetting volume 5µl.

## Carry-over

Carry-over less than  $10^{-7}$  achieved by polished stainless steel tip, special washstation and programmable wash procedures.

Optional disposable tips for contamination free sample distribution

## Liquid Detector

Capacitive level sensor for each probe. Minimum detectable volume 200µl of conductive liquid.

## Standard System

Workbench 720 x 290 mm with  
1 sample rack for 12/13mm test tubes,  
1 sample rack for 15/16mm test tubes,  
1 adaptor for 2 microplates,  
1 vacuum station,  
4 pressure tools,  
4 syringe pumps,  
electronic control for compressed air or nitrogen,  
electronic control for vacuum pump,  
1 chemical resistant vacuum pump

## Options

Cartridge adaptor for 1, 3 or 5ml SPE-cartridges,  
6 High flow rate 6x4-way valve for solvent distribution,  
Robotic arm for plate and block handling,  
additional vacuum filtration stations,  
Disposable tips,  
Barcode reader for plates and tubes,  
Sample racks for test tubes,  
Receiving racks for Eppendorf or Chromatography vials,  
Adaptors for 2 or 3 microplates,  
Stackers for 3 or 6 deepwell plates or SPE-blocks



## Technical Data

## Interface

Interface RS 232

## Dimensions

Overall dimensions:  
900x710x600mm  
(LxDxH)

Workspace:  
720x290x150mm

## Weight

38 kg

## Operating Conditions

Temperature:  
+15°C to + 30°C

Relative Humidity:  
10-85% at £30°C

## Power requirements

110/220-240 Volts,  
50/60 Hertz