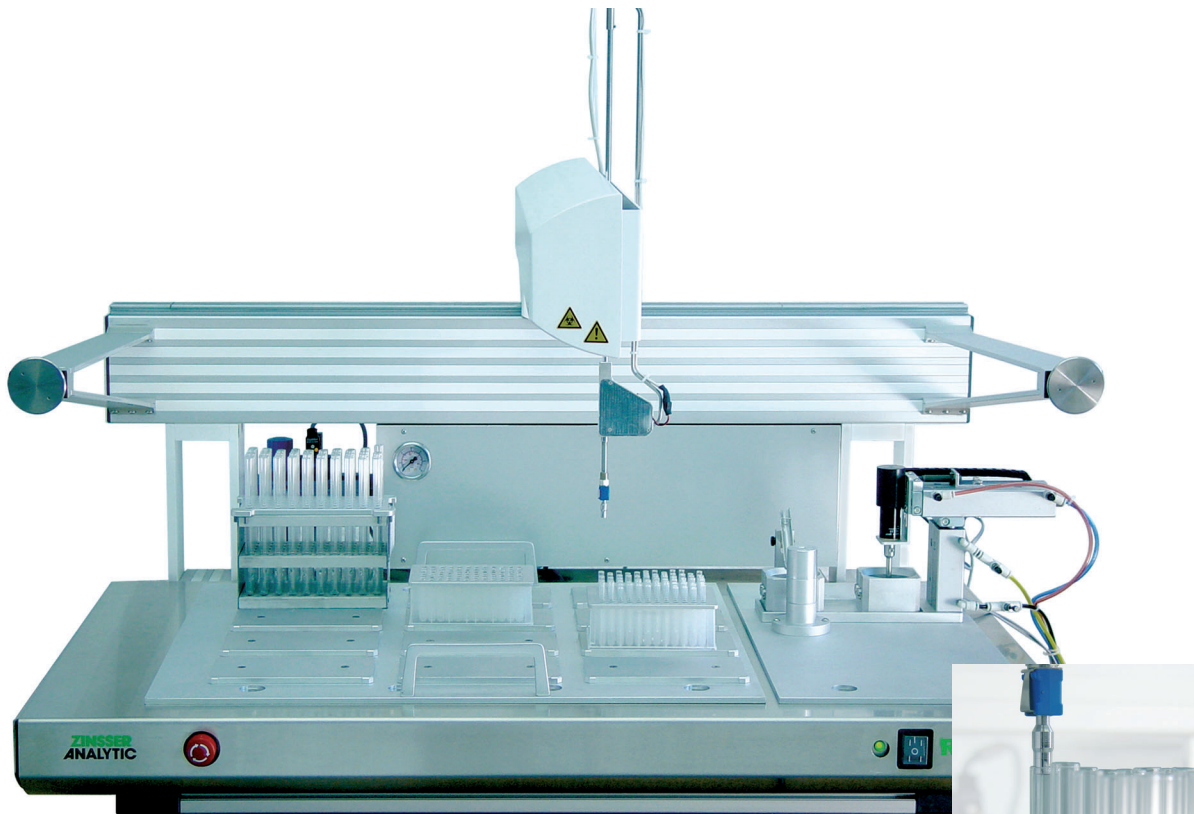# REDI 2002 plus

## High Precision Powder Dispensing



The accurate dispensing of powders is an extremely tedious and time-consuming process. REDI (Resin Dispenser), an X, Y, Z dispensing system with a powder pipette, helps to automate sample preparation in analytical applications, in material research and also in modern combinatorial chemistry. The pipette picks up a pre-determined volume of material automatically and distributes the solid compounds quickly and precisely. The system dispenses granular and powder materials such as seeds, salts or other crystalline or even electrostatically charged material from 1µl to 300µl (e.g.1µl =  0.3mg of Aerosil).

REDI 2002 plus can be equipped with various tips:
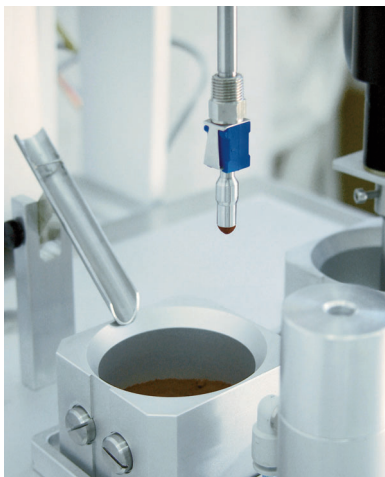


- Exchangeable fixed volume pipette, which can be customised for the density of the resin or powder and to the destination container (e.g. 384 well plate, HPLC vial)

- PickFix - fixed volume tip which can be picked up (automatically exchanged) and used for each individual powder to avoid cross contamination

- VAREDI® - manually adjustable variable volume tip which covers volumes from 10 - 400 µl

- VARIX® - our software controlled variable volume tip for volumes from 1 - 300µl, depending on the VARIX module
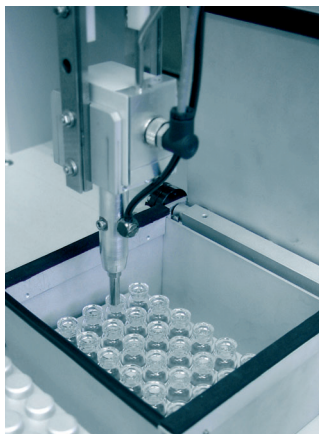
Weight reproducibility depends upon the particle size distribution within the sample. Powders with narrow particle size show precise distribution, with excellent reproducibilities. Test results with different powders have given reproducibilities of ±5% for 1mg, ±3% for 10mg, ±1% for 50mg,and ±1% for 150mg.

The fixed volume powder tips can be quickly exchanged. They are available in a range of sizes in polished stainless steel matched to customer requirements, to give particular target weight deliveries. For higher throughput REDI 2002 plus can be supplied with up to 8 powder pipettes. REDI can be equipped with multiple powder reservoirs for selective powder distribution.
REDI 2002 plus can distribute single or multiple powders without cross contamination in a single run. Instructions for selective distribution can be downloaded from external databases or simply by an Excel®-sheet. Cross contamination is avoided by intensive cleaning or by using multiple tips.

## A typical Workflow
An example of a typical workflow would be: reading the barcode of the destination container, opening & taring the vial; dispensing the powder; weighing the vial to get the added powder weight; calculating the amount of solvent to reach concentration and then dispensing the solvent into the vial; closing the vial; then dissolution by vortexing or sonication.
All this can be easily automated without user interference.

## Liquid & Powder Handling
Equipped with our independent spacing probes the system can simultaneously distribute liquid and solid compounds. The required amount of liquid can be downloaded from a file or calculated by our software.
Each tip of the REDI system can be fitted with a different probe. The software individually controls them. For optimum liquid handling results Zinsser Analytic has designed a large variety of probes:
You can choose from single channel, coaxial dual channel, tri-axial triple channel probes of chemically resistant stainless steel, electro polished, PTFE or glass coated, for standard liquid handling, special probes for filtration, spotting, spraying, piercing and inert gas exchange.
To avoid cross contamination disposable tips are available for delicate applications.

## Designed for Customisation
REDI 2002 plus is available in 3 different lengths: 1000, 1500 and 2000mm. Besides a wide range of racks and carriers that are available as standard, the workbench can take your own racks. You can specify with your order the types of racks you want to use or have special racks designed for your application.

To meet individual requirements REDI 2002 plus can be equipped with vortexers, sonicators, hotplates, cooling plates, stirrers, reactor blocks, capper and decapper for vials, barcode camera, balance, filtration modules or other modules from our extensive range of tools.

Interchangeable complete workbenches are available for dedicated multi-user applications.