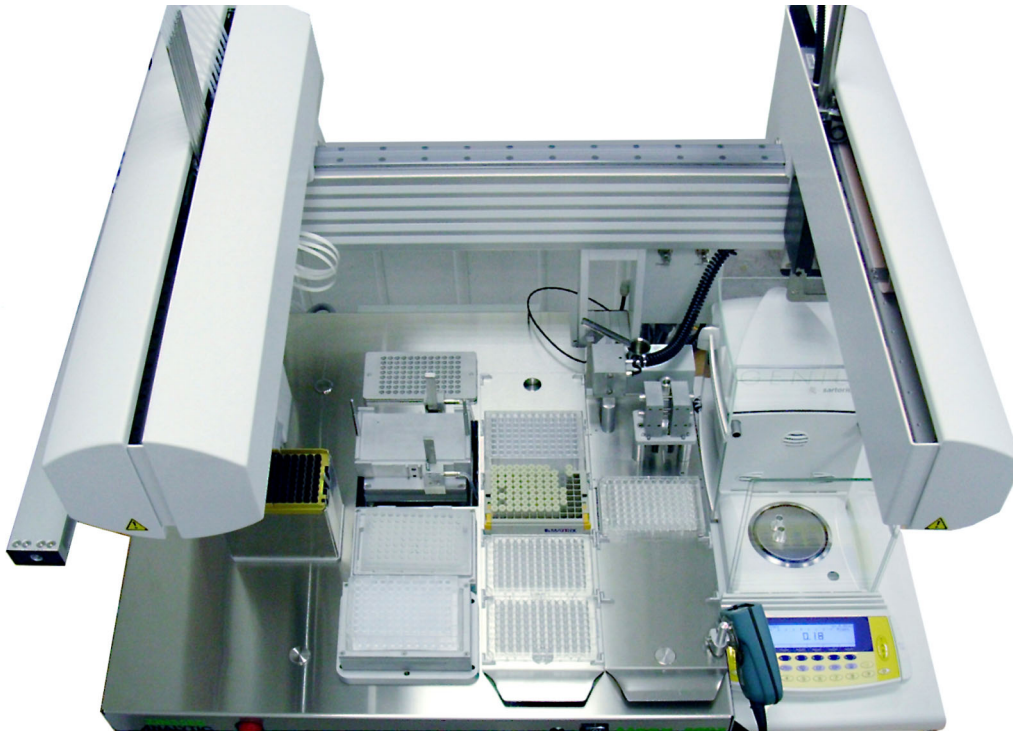


## CALLI® 2002

Automatic Weighing, Liquid & Powder Handling and Sample Management System



CALLI®2002 combines automatic liquid and powder handling with precision weighing in a single system and opens up new dimensions in workbench automation for sample handling and preparation as well as sample management.

### **Proven reliable X,Y,Z-platform**

with up to independent Z-drives for liquid and powder handling and an integrated robotic arm for gripping vials, tubes, plates and pick-up tools, which can then be placed in any position of the workbench area.

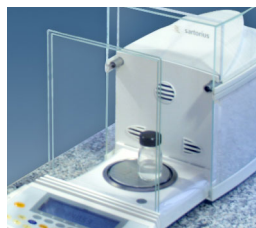
### **Unique new hardware approach**

The precision balance can be positioned outside the workbench still within reach of the robotic arm or integrated into the workbench. The balance stand avoids any mechanical distortion, minimizing the settling time, improving the sensitivity and therefore increasing the throughput.

### **Designed for customisation**

To meet individual requirements, it can be equipped with vortexers, hotplates, cooling plates, stirrers, reactor blocks, incubators or other modules from our extensive range of tools. The unique software allows the customer to even integrate his own modules. For special applications we offer the service of integration of custom modules.

## CALLI®2002 systems tailored for specific needs



### Weighing only

**CALLI®2002** WS Sero is the economic system for weighing and taring. It reads the barcode, automatically tares and weighs any kind of vials, tubes etc. and can communicate with external databases to compare or transfer data.



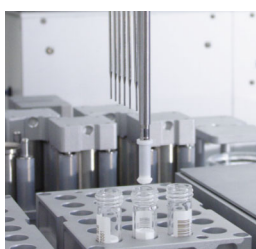
### Weighing and liquid handling

**CALLI®2002** reads barcodes of vials and plates, calibrates vials, weighs the content, calculates dilution volumes, files the data in an internal database, and offers, with up to 8 independent variable spacing probes, all possible liquid handling functions.



### Weighing and powder handling

**REDI 2002plus VARIX®** combines automatic weighing and variable powder distribution. It reads barcodes, tares containers and can either control the dosage of distributed dry materials by weighing the receiving container or automatically weighs with its software controlled variable powder pipette (**VARIX**) a target quantity from 1mg to 2.5g into a destination vial.



### Weighing, liquid and powder handling

**LIPOS 2002 VARIX** has been designed for enhanced sample preparation combining liquid and powder handling together with automatic weighing. It can distribute dry materials such as powders, resins, seeds and salts and add liquid reagents simultaneously. It has up to 7 liquid handling channels with variable spacing and one **VARIX®** powder pipette.



### Weighing, sorting, organizing

**CALLI®2002-plus** is an optional sample management software package, offering comfortable sorting functions such as "Hit Picking" of vials and micro tubes by individual sample properties (barcode, weight, product data) and any combination of internal and external database values and entries.

The sorting instructions can be set up from an Excel-sheet and SQL-commands. **CALLI®2002-plus** produces report protocols which can be formatted to individual requirements, in printed form or into special data formats for peripheral systems and host computers.

## Options for outstanding flexibility

The open design of the CALLI®2002 platform and the WinCALLISoftware allow the integration of a number of modules to optimize the functions of CALLI®2002 for individual applications.

### The Choice of probes

Each needle drive of the CALLI®2002 system can be equipped with a different probe. They are individually controlled by the WinCALLI software. For optimum liquid handling results Zinsser Analytic has designed a large variety of probes: You can choose from single channel, coaxial dual channel, triaxial 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.

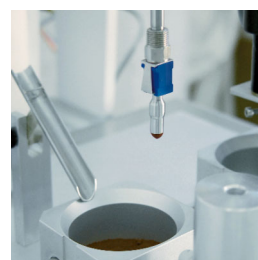
To avoid cross contamination disposable tips are available for delicate applications in chemistry and sample distribution. 100µl, 230µl and 1.000µl tips offer optimum liquid handling results.



### Powder Pipettes

The powder dispensing tool can be mounted on any Z-drive instead of a liquid handling probe.

Powder shakers or stirrers with 1, 2 or 4 stainless steel 17 or 60ml reservoirs, which agitate the powder for a uniform particle size distribution, can be integrated. A vacuum and positive pressure cleaning station assures efficient cleaning of the tips. For delicate work, where absolutely no cross contamination can be risked, fixed volume reusable pick up tips with disposable filters and a wash & drying station for the tip adapter are available.



### Freedom of Racks

Besides a wide range of racks and carriers which are available as standard, the CALLI®2002 workbench can take up 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. The racks are positioned by location pins on the workbench. Complete exchangeable workbenches are available for dedicated multi-user applications.



### The Power of Vortexing

For dissolving solids with solvents, special powerful, low noise vortexers have been designed. The Heavy Duty Vortexer takes up to 2.5 kg. Vortex racks for any type of test tubes and vials or holding plates for centrifuge carriers etc can be supplied to individual specifications.

If you require efficient dissolution under vortexing in deepwell plates (or any other microplate formate) or small tubes with an inside diameter as small as 4mm, Desyre®Mix is the solution. The software controlled vortexer has a specially selected amplitude and high speed (up to 1800 rpm) and automatic clamping of the rack or plate. For enhanced dissolution or incubation it can also provide heating up to 150°C. Both vortexers are equipped with an index stop.



## System Configuration

<b>Platform:</b>	X-,Y-, Z-platform, with up to independent Z-drives and built-in robotic arm
<b>External Balance:</b>	High Quality 5-place balance with automatic door
<b>Integrated Weighing Cell:</b>	4-place weighing cell with housing
<b>Barcode Reading:</b>	High resolution 2D-camera for tubes, vials and plates
<b>Liquid Handling:</b>	<b>CALLI®2002</b> 8 precision syringe pumps (syringes from 500µl to 5ml) 8 independent probes with flexible spacing (min. 8mm, max. 340mm) Capacitance level detection on each liquid probe
<b>Powder Handling:</b>	<b>REDI 2002plus VARIX®</b> 1 VARIX, variable software-controlled powder pipette 1-300µl Vacuum and positive pressure powder cleaning station
<b>Liquid &amp; Powder Handling:</b>	<b>LIPOS 2002 VARIX</b> Up to 7 precision syringe pumps (syringes from 500µl to 5ml) Up to 7 independent probes with flexible spacing (min. 8mm, max. 340mm) Capacitance level detection on each liquid probe 1 VARIX, variable software-controlled powder pipette 1-300µl Vacuum and positive pressure powder cleaning station

## Dimensions

<b>External Balance:</b>	Work space: 700 (workbench) + 300mm (balance) x 420 x 150 mm (WxDxH) Overall dimensions: 1000 x 730 x 950 mm (WxDxH)
<b>Optional:</b>	Work space: 1200 (workbench) + 300mm (balance) x 420 x 150 mm (WxDxH) Overall dimensions: 1500 x 730 x 950mm (WxDxH) Work space: 1700 (workbench) + 300mm (balance) x 420 x 150 mm (WxDxH) Overall dimensions: 2000 x 730 x 950 mm (WxDxH)
<b>Integrated Weighing Cell:</b>	Work space: 770 x 420 x 150 mm (WxDxH) Overall dimensions: 1000 x 730 x 950 mm (WxDxH)
<b>Optional:</b>	Work space: 1200 x 420 x 150 mm (WxDxH) Overall dimensions: 1500 x 730 x 950 mm (WxDxH) Work space: 1770 x 420 x 150 mm (WxDxH) Overall dimensions: 2000 x 730 x 950 mm (WxDxH)

## Options

<b>Balance:</b>	5-place balance, de-ionisation
<b>Vortexer:</b>	Heavy Duty Vortexer, 20-800 rpm, 2,5 kg payload Desyre®Mix, 100-1.800 rpm. 1,5kg payload, heating RT to 150°C
<b>Disposable Tips:</b>	Disposable Tip adaptor for 100, 230 and 1.000ul conductive tips
<b>REDI:</b>	powder pipettes, fixed volume or manually adjustable tip, re-usable tip adaptor
<b>Pick-up Tools:</b>	for vial-, tube- and plate transport

Specifications may change without notice

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