

# 815 Robotic Soliprep



- automated, reproducible sample preparation at the highest level
- saves space and is easy to operate
- filtrates and homogenizes a large variety of samples

# Robotic Soliprep – your reliable partner in sample preparation

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## The Metrohm solution for your sample preparation

For a long time now, Metrohm's automation program has enabled the transfer of your titrimetric applications to a fully automatic system. The 815 Robotic Soliprep is a new version of the proven 815 Robotic USB Sample Processor that will enhance your daily routine work. The main application area of the Robotic Soliprep systems is professional sample preparation.

The Robotic Soliprep family comprises four packages that cover different standard sample preparation steps. The core of the system is the 815 Robotic USB Sample Processor, which has established itself due to its flexibility and robustness. Depending on the sample preparation task it is equipped with the accessories needed to meet your requirements. You get exactly what you need – a compact, economical automation system for the preparation of your samples.

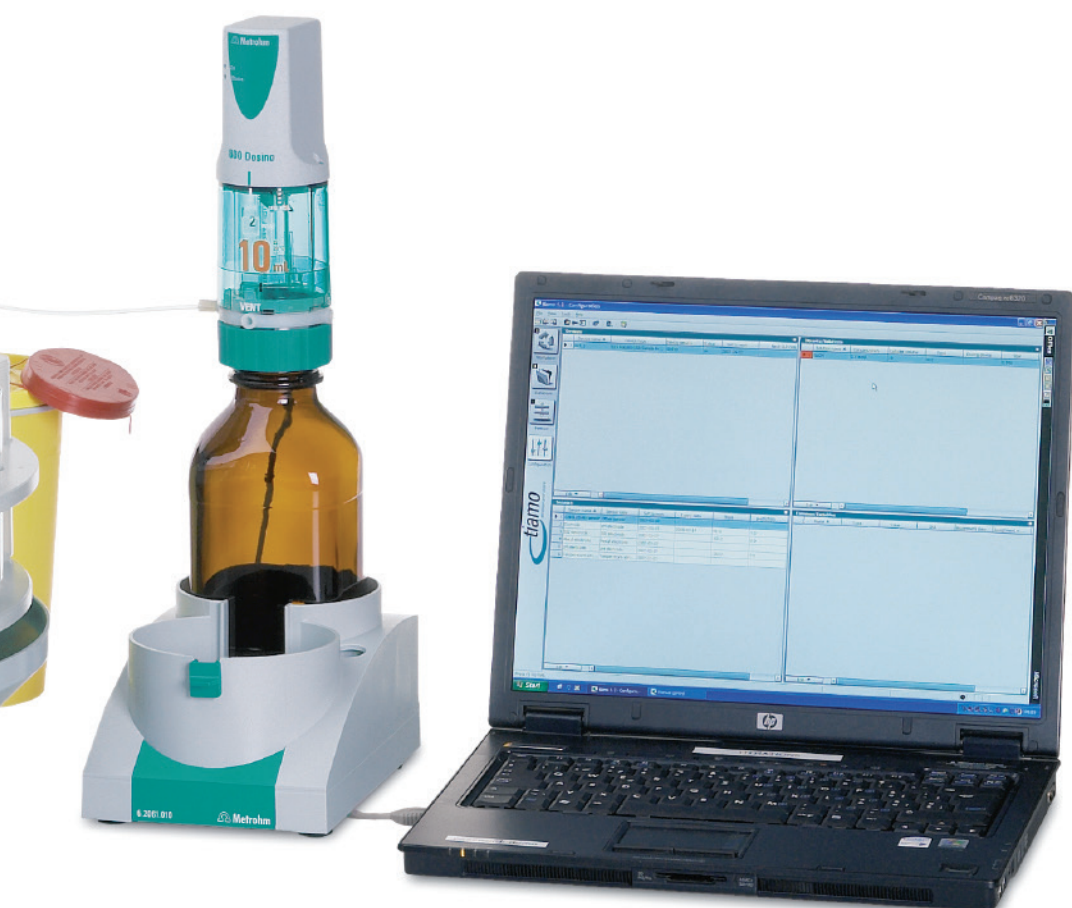
The 815 Robotic Soliprep can be controlled by the proven **tiamo™** titration and control software or MagIC Net software. Both permit the flexible programming of your sample changer, include a powerful database and comply with all the relevant regulations such as 21 CFR Part 11.



## The advantages of the Robotic Soliprep

- Proven technology based on the Robotic USB Sample Processor
- Versatile, fully automatic sample preparation – kept simple
- Saves time by automating routine tasks
- Intelligent liquid handling – pipetting, dilution and more
- Homogenization with one of the leading instruments on the market
- Improved results thanks to the standardization of the sample preparation procedure
- Reliable, robust and safe
- Efficient sample preparation in a minimum of space
- Attractive price
- The control software leaves no wish unfulfilled

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## Typical manual sample preparation steps

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### Homogenizing

Homogenizing is a very important step in the preparation of samples that cannot be dissolved. Crushing with mortar and pestle is not only arduous and time-consuming but also produces inconsistent results.



### Filtering

To avoid problems in the subsequent analysis due to particles that remain after the homogenization procedure, these particles must be filtered off, a step that is mandatory before any chromatographic or photometric sample analysis.



### Liquid Handling

Once the clear sample solution is obtained, it is metered with a glass pipette and, if necessary, mixed with reagents in preparation for the analysis.



### Analysis

Depending on the substance to be determined, the analysis can be carried out directly in the homogenized sample or in the clear, exactly metered filtrate.



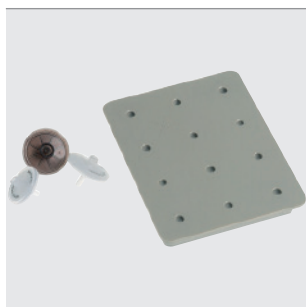
# Your sample preparation with the Robotic Soliprep – each step fully automatic

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## Homogenizing

The Polytron® 1300D made by Kinematica ensures that each sample is treated in exactly the same way. Different dispersing aggregates are available and enable optimal matching of the homogenization procedure to your application. The duration of the homogenization procedure and the homogenizer speed are controlled by the software.



## Filtrating

With filtration using a syringe and disposable filters, the greatest challenge is to keep the pressure constant during sample introduction. The connected Dosino guarantees a steady addition of the sample solution. Commercially available syringe filters with standard Luer connector can be used directly with the Robotic Soliprep.



## Liquid handling

The term liquid handling includes a lot more than just pipetting an exactly defined amount of sample. From dilution series to sample transfer into a sealed vessel, liquid handling nowadays knows almost no limits.



## Analysis

Depending on the version, the system can be used exclusively for sample preparation or can be combined with a titrator or an ion chromatograph. This provides for complete documentation and traceability of the analysis and sample preparation.

## «Robotic Titration Soliprep»

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«Robotic Titration Soliprep» is the complete package for the titrimetric determination of samples that first have to be homogenized. It contains all the components for the fully automatic sample preparation and determination.

### **Cleanliness is all-important**

The Polytron® 1300D minimizes sample loss and saves time as it homogenizes the sample directly in the solu-

tion. Because the sample frequently contains insoluble auxiliary components, the dispersing aggregate of the homogenizer must be thoroughly cleaned after each use. This thorough cleaning of the aggregate is carried out fully automatically in the external rinsing station while the sample on the rack is being titrated. If required a further cleaning agent can be added to the solution in the rinsing station.



The height-adjustable pivoting arm allows optimal positioning of the Polytron. It also allows the exact addition of solvent immediately before the start of the homogenization



Pivoting arm for Polytron.

Together with the rinsing station, the tried-and-tested 772 Pump Unit constitutes the optimal cleaning unit. It's up to you to decide whether the dispersing aggregate is to be cleaned by immersion in a cleaning solution or by spray nozzles. The powerful peristaltic pump leaves nothing to be desired.



772 Pump Unit.



Robotic Titration Soliprep – homogenization and titration in one run.

## «Robotic Filtration Soliprep»

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**Analysis**

This fully automatic sample preparation system enables fast and efficient homogenization and filtration of your samples.

### **Solidly based on sample preparation**

It is widely known that meaningful and exact analytical results are only possible with a sample preparation that meets the highest demands. Thanks to the proven combination of Dosino and Polytron, the Robotic Soliprep performs this task reproducibly also at high sample throughputs.

### **Everything clear?**

Fillers contained in the sample, to mention just one example, interfere with the subsequent chromatographic or photometric determination. When manual filtration with syringe and disposable filters is used for separation, the required uniform filtration speed is difficult to achieve and the filtration requires lots of time and patience if reproducible results are to be obtained.



### **Right on target!**

The sophisticated mechanism for grabbing and dropping of tools such as one-way filters and syringes works without any user intervention. The used tools are collected in a bin that can be sealed and disposed of simply and safely.



Collection bin for used tools.

Forget bulky dosing devices that clutter your lab bench – the Dosino is integrated in your Robotic Soliprep and mounted on the reagent bottle, which makes it an unrivaled space saver. Thanks to the proven Dosino technology it is possible to introduce sample solutions through the syringe filter under strictly uniform conditions.



800 Dosino with different Dosing Units.



Robotic Filtration Soliprep – homogenization and filtration in one run.

## «Robotic Flexible Soliprep»

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Analysis

Make the Robotic Flexible Soliprep your sample preparation station and experience the following advantages:

### Enjoy the freedom

Work in today's quality assurance laboratories is highly varied as each product requires specific preparation procedures. The samples have to be homogenized, filtered, diluted and, possibly, dispensed into sealed vials using procedures that are tailor-made for each product. Wouldn't it be nice to carry out all these different steps

with one push of a button while taking care of other work at the same time? The Robotic Flexible Soliprep makes this possible.

### More than just homogenizing and filtering

Thanks to its high flexibility this instrument can be adapted to your wishes and requirements. It can, for example, fill the same sample into different vessels for additional analyses and add auxiliary or stabilizing reagents completely automatically.



### Flexible and still very safe

Encoding enables each insert to be taken out for filling and reinserted correctly so that mix-ups are ruled out.



Sample rack with code.

The Metrohm Robotic Sample Processors excel by their accuracy and robustness. The specially designed reinforced pivoting arm handles any mechanical challenge with ease.



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Your Metrohm Robotic Soliprep works very precisely.



Robotic Flexible Soliprep – your sample preparation station.

## 815 Robotic Soliprep for LC – automation for solid samples

The old cliché, according to which ion chromatography is only suitable for analyzing liquid samples, is no longer valid. Modern sample preparation and automation techniques also allow gases and solids to be analyzed. With the 815 Robotic Soliprep for LC, Metrohm offers a modern automation solution for solid samples.

The 815 Robotic Soliprep for LC is a version of the 815 Robotic USB Sample Processor XL. With this system all manual steps can be automated in full.



**Automatic sample preparation of various steps.** In the first step, solvent is added, the sample comminuted and then homogenized. After that, sample is aspirated with a metal-free needle, filtered and finally transferred directly to an LC system by way of a connection port.





In the Soliprep system the sample rack can be adapted individually to the particular application. Different inserts provide the highest degree of flexibility.



### The 815 Robotic Soliprep for LC – more than a sample changer

The 815 Robotic Soliprep for LC enables users to homogenize, extract, dilute and filter solid or liquid samples. Subsequently, the sample is transferred directly to an IC or HPLC system by way of a connector. Depending on the requirements of the application, the 815 Robotic Soliprep offers enormous flexibility in the configuration of the system and integrates all sample preparation steps into a single, continuous and fully automated analytical sequence. To this end there is a selection of sample racks available, which can be equipped with various inserts.

#### The equipment of the 815 Robotic Soliprep for LC

The 815 Robotic Soliprep for LC comprises not only an 815 Robotic USB Sample Processor XL with two work stations, but also the equipment for homogenizing the sample («Polytron» homogenizer and washing station for

the «Polytron»), for Liquid Handling (800 Dosinos and 772 Pump Unit) and for transferring the prepared sample to an LC system (connector with capillary). 24 solid samples in 120 mL vessels can be placed on the standard sample rack of the 815 Robotic Soliprep for LC. In addition, 30 sample vials (11 mL), 24 metal-free sample needles and 24 syringe filters are available there.

#### Applications from a variety of industrial sectors

With the 815 Robotic Soliprep for LC the scope of use of ion chromatography can also be extended to solid samples. Typical samples come from the pharmaceutical industry. However, this system is also ideally suited to the analysis of foods, feedstuffs and environmentally relevant samples such as sediments.



**The 815 Robotic Soliprep for LC** for Inline Sample Preparation of solid samples. The worked-up sample is transferred directly to an IC or HPLC system. This fully automatic analytical system minimizes manual steps and guarantees complete traceability.



## Ordering information

### 815 Robotic Soliprep

- 2.815.1110 815 Robotic Soliprep «Robotic Titration Soliprep»\*
  - 2.815.2110 815 Robotic Soliprep «Robotic Flexible Soliprep»
  - 2.815.3110 815 Robotic Soliprep «Robotic Filtration Soliprep»
  - 2.815.4110 815 Robotic Soliprep for LC
- Aggregates and electrodes have to be ordered separately

### Accessories

#### Aggregates

- 6.9012.000 Dispersing aggregate for Polytron 115 mm
- 6.9012.010 Dispersing aggregate for Polytron 157 mm

#### Sample beakers

- 6.1432.320 Sample beaker 250 mL made of glass
- 6.1453.250 Sample beaker 250 mL made of PP
- 6.1459.300 One-way sample beaker 120 mL made of PP (100 pieces)
- 6.2743.050 One-way sample beaker 11 mL made of PP (2000 pieces)

\* The titrator has to be ordered separately.

[www.metrohm.com](http://www.metrohm.com)

