

**FlowSyn™ Automated Loop Filling (Auto-LF™) Package**

## FlowSyn Automated Loop Filling (Auto-LF™) Package

### What does the Auto-LF™ do?

- ◆ Automates the preparation of combinatorial libraries in flow.
- ◆ Runs automated reagent scans and optimise reaction conditions in flow.
- ◆ Saves time — perform simultaneous loop filling & fraction collection.
- ◆ Graphs reactor pressures and temperatures in real-time.
- ◆ Captures detailed experimental reports.

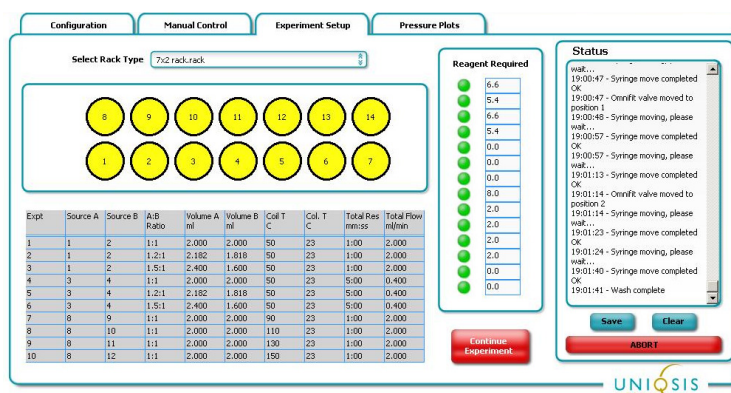


# Straightforward Software.

Auto-LF™ is programmed using software that runs on a dedicated laptop (supplied).

The user interface is organised in a similar way to the standard FlowSyn graphical interface and will be very familiar to existing FlowSyn users. All the control screens (Configuration, Manual Control, Experiment Setup and Logging) are conveniently accessed by selecting the relevant 'tab'.

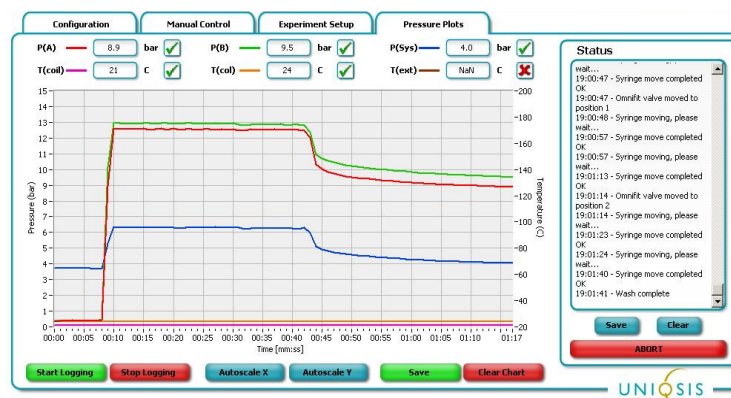
**Experiment Setup:** The Experiment Setup screen is used to select the desired reagent rack layout and associate the different solutions to build the set of combinatorial reactions you plan to run. This plan is displayed as a spreadsheet that summarises all the reaction conditions; each of which can be completely different.



The volumes of reagent solutions are automatically accumulated and an error message displayed if any of these inadvertently exceed the maximum permissible rack vial volume.

**Data Logging:** Pressure and temperature plots can be viewed in real time during an experiment by switching to the 'Pressure Plots' screen. This data allow the user to quickly survey the performance of the flow reactor and be assured that all is well.

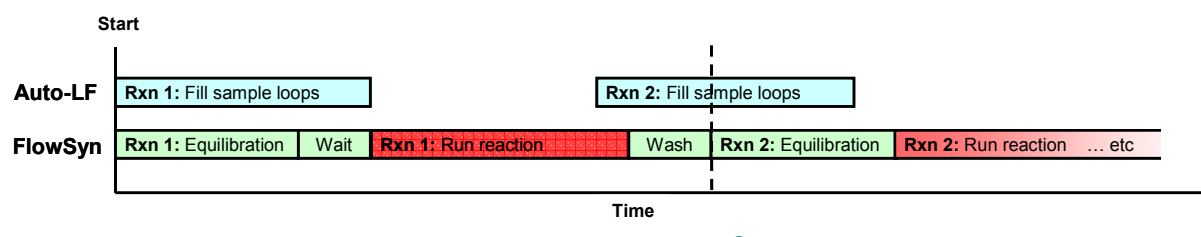
The pressure and temperature profiles can subsequently be saved and downloaded for archiving.



*" Why does it take so long to fill sample loops? This can add a lot of down time to a series of flow experiments."*

To avoid wasting precious material, the most economical method for filling sample loops is to fill the loop with a reagent 'plug' that is both preceded and followed by an air bubble. This effectively prevents dispersion that would otherwise result in the sample being diluted by the system solvent. However, to avoid air bubble 'break up' and subsequent fragmentation of the sample plug this must be done *slowly*. Over a series of experiments this can add a considerable amount of time!

By utilising a separate Sampler and Fraction Collector, as shown below, FlowSyn can begin to fill the sample loops for the next experiment before finishing the current experiment!



## OK, so what's really good about ALF?

### Flexible!

Each reaction can have a different set of conditions (stoichiometries, residence times, temperatures). The Sampler can be independently controlled through the manual control interface if required.

### Saves time!

A separate Sampler and Fraction Collector ensures that run times for a series of experiments can be kept to a minimum. This is because filling of the sample loops for the next experiment can begin before the current experiment has finished.

### Reliable!

No injection port to leak or block; fully integrated robust wash protocols to minimise the risk of cross-contamination.

Comprehensive wash cycles; sampler can be calibrated to position samples precisely within the sample loops.

### Versatile!

Sample loops can be partially or fully loop filled with or without air bubble spacers.

### Compact!

Fume cupboard space is valuable; the use of a compact XYZ Sampler and a stacked Fraction Collector configuration minimises space requirements.

### Easy to use!

The new user interface builds on the well proven format used for the standard FlowSyn. Multiple experiments can be quickly programmed and then monitored in real-time.

### Backward compatible!

The Auto-LF package has been designed to offer an upgrade path for existing FlowSyn users and is therefore compatible with most existing FlowSyns (please check with your distributor).

## UQ-1092 FlowSyn Auto-LF™ Package (with FC203B Fraction Collector)

### FC203B Fraction collector.

Dimensions : 324 mm (w) x 292 mm (d) x 267 mm (h)

### Gilson 221 XYZ Sampler with integral electrical 4-position selection valve, wash station and Code 33P sample rack.

Dimensions: 330 mm (w) x 465 mm (d) x 230 mm (h).

### Gilson 402 Single Syringe Pump with 10 mL syringe.

Dimensions: 170 mm (w) x 200 mm (d) x 240 mm (h).

Uniqsis "Optimise" rack (10 x 20 ml vials and 10 x 2 mL vials) and standard Code 23W (44 x 4 mL vials) fraction rack. Sample vials and

Calibrated connecting tubing integration kit.

Laptop with FlowSyn Auto-LF™ software and supporting utilities installed.

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