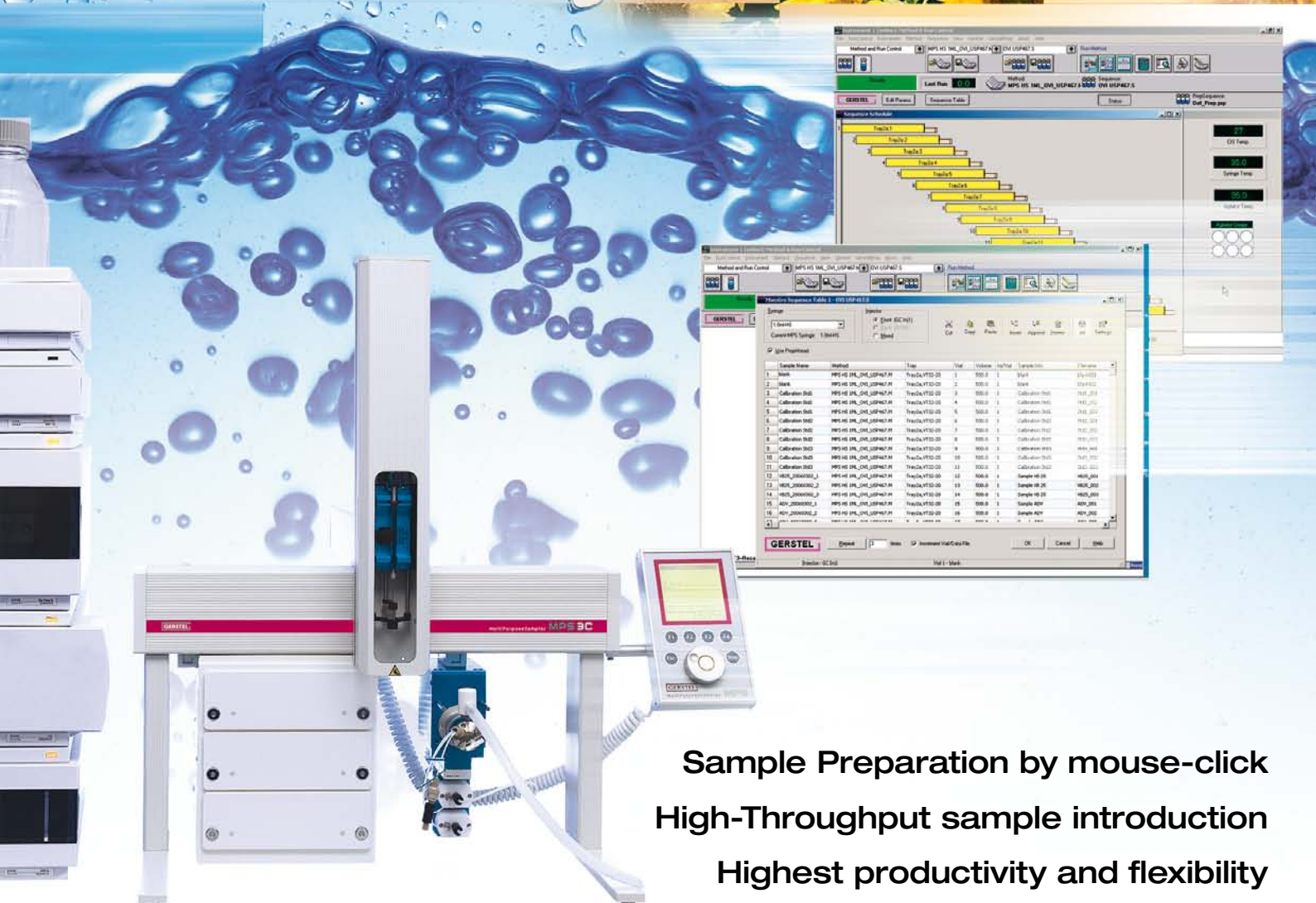**GERSTEL**

MultiPurpose Sampler

MPS

for LC and LC/MS

Sample Preparation by mouse-click

High-Throughput sample introduction

Highest productivity and flexibility

GERSTEL **M**ulti**P**urpose **S**ampler **MPS**
for LC and LC/MS

Unique productivity and flexibility for liquid chromatography and LC/MS

Improve your LC/MS productivity while ensuring best accuracy and reliability. The GERSTEL MultiPurpose Sampler (MPS) is a highly productive autosampler for sample preparation and sample introduction of up to 3456 samples. In combination with the GERSTEL MAESTRO Software, the MPS provides **more performance** and **higher productivity** in sample preparation than any other commercially available LC/MS autosampler. The MPS is compatible with all standard LC Systems. As the leading Premier Solutions Partner for Agilent Technologies world-wide, GERSTEL provides complete solutions including GC/MS and LC/MS with fully integrated software control from the Agilent Technologies ChemStation software.
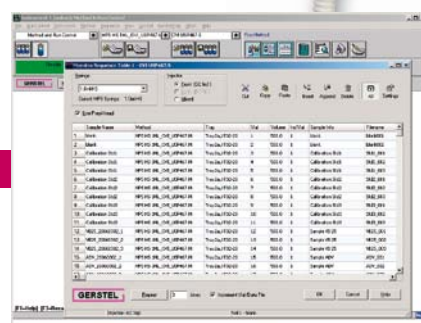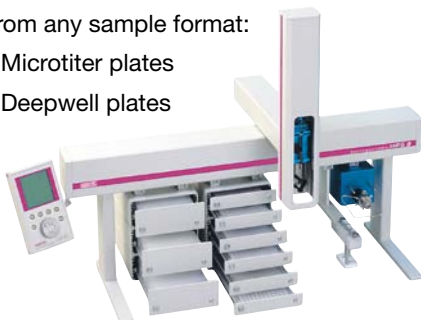
> Just one integrated method and one integrated sequence table operates the entire system including MPS sample preparation, sample introduction and LC/MS – simply by mouse-click.

Liquid injections (LC or LC/MS)

- Integrated software control
- Up to 3 injections per minute
- Two solvent wash stations: Minimal carry over
- Sampling needle rinsed on both the inside and outside to minimize carry-over
- Active wash station rinses injection valve and syringe simultaneously, reducing both carry-over and cycle time
- Capable of sampling from any sample format:
    - 3456 samples in 36 Microtiter plates
    - 1728 samples in 18 Deepwell plates
    - 972 x 2 mL Vials
    - 600 x 1 mL Vials
    - 96 x 10/20 mL Vials

Automated Sample Preparation

The MPS allows you to automate all sample preparation steps. Every step is perfomed in a highly accurate and reproducible manner for best possible results. Every step is selected by mouse-click from a pull-down menu in the MAESTRO software and added to the overall LC or LC/MS method. Available sample prep techniques are:

- Standard addition
- Derivatization
- Dilution
- Extraction
- Heating and/or mixing

Liquid handling is performed using microliter syringes to limit the amount of solvent needed for the processes.

GERSTEL MPS with SPE option

Fully integrated software control

The intelligent MAESTRO software makes it extremely simple to control and operate all GERSTEL accessories and systems. Just one method and one sequence table is required to operate the complete system including LC or LC/MS and data handling. The MAESTRO software operates stand-alone or fully integrated into the ChemStation software from Agilent Technologies – ensuring simple and error-free operation.

Modular design, easy to upgrade

The MPS is easily adapted to new tasks and processes in the laboratory. Exchangeable syringe modules enable fast change of methods even between different analytical techniques, such as liquid sample handling and sample introduction, Solid Phase Extraction (SPE), Membrane Assisted Solvent Extraction (MASE) and Twister Back Extraction (TBE).

Heated or cooled sample trays

MPS sample trays and the sample stacks for Deepwell or Microtiter plates can be optionally heated or cooled in order to stabilize or condition samples. The MPS Peltier cooled or cryostatically cooled trays and stacks cover a temperature range from 4 to 70 °C. In order to control sample preparation reactions, for example, when a derivatization step is used, the MPS agitator and orbital shaker can be programmed to operate at temperatures between 10 and 200 °C.

Automated Solid Phase Extraction (SPE)

The MPS with Automated SPE Option enables easy and productive automation of the SPE process using standard cartridges

- Standard cartridges 1, 3 and 6 mL
- Direct transfer of existing manual SPE methods
- For GC/MS or LC/MS systems
- Highest productivity through overlapping SPE and analysis
- Highly accurate and reproducible liquid transfer
- Constant flow rates
- New cartridge used for every sample, no cross contamination
- Drying of cartridges or solvent evaporation using a flow of inert gas
- Control via the GERSTEL MAESTRO software or integrated control through ChemStation software from Agilent Technologies
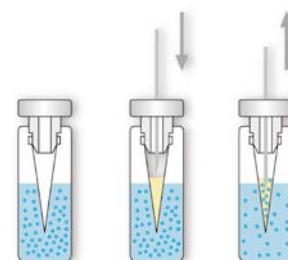
Twister Back Extraction (TBE)

For thermally labile analytes

- Liquid solvent desorption of analytes that are absorbed in the Twister
- For liquid injection to a GC or LC system

Membrane Assisted Solvent Extraction (MASE)

- Liquid-liquid extraction using solvents that have weak phase separation
- Extraction of water/fat emulsions with an organic solvent
- Extraction of aqueous samples using an LC-compatible solvent such as acetonitrile

GERSTEL MAESTRO Software

Next generation software for automated sample preparation and sample introduction MAESTRO optimizes performance and throughput of GERSTEL modules and systems.

- Stand-Alone operation or fully integrated in the Agilent ChemStation Software
- One sequence table operates the entire system including LC/MS or GC/MS
- Sample Prep by mouse-click using the PrepBuilder functions
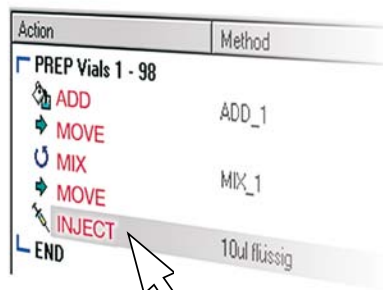- Scheduler for easy planning

- PrepAhead: Automated overlapping of sample prep and analysis for optimum productivity and throughput
- Priority samples can be added to the system at any point in the analysis sequence
- LOG file and Service LOG file functions ensure traceability
- Automated E-mail notification in case the system is halted
- Control of up to 4 systems
- Real-time monitoring of all modules and parameters
- Interactive on-line help function

Sample prep by mouse-click

The MPS is a fully automated sample preparation and sample introduction robot for LC and GC.

Sample preparation steps are performed during the analysis of the preceding sample for best possible system utilization and highest sample throughput. Every step is perfomed in a controlled and highly accurate and reproducible manner for best possible results. Every step is selected by mouse-click from a pull-down menu in the MAESTRO software and added to the overall LC or LC/MS method. Available sample prep techniques are:

- Solid Phase Extraction (SPE)
- Standard addition
- Derivatization
- Extraction and dilution
- Heating, conditioning and mixing
- Twister Back Extraction (TBE)
- Automated Liner EXchange (ALEX)
- Automated Twister (SBSE) desorption and analysis
- Solid Phase Micro Extraction (SPME)
- Thermal Desorption (TDS)
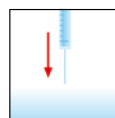- Dynamic Headspace (DHS)
- Multi Column Switching (MCS)

ADD

MOVE

MIX

INJECT

GERSTEL

GLOBAL ANALYTICAL SOLUTIONS

Agilent Technologies
Premier Solution Partner