GERSTEL MPS LabWorks Platform

Eliminate Doubt, Discover the Unknown

Solve your critical analytical challenges
with unmatched capability and flexibility

MPS LabWorks Platform
Automated Sample Introduction

The GERSTEL MPS LabWorks Platform is the only truly universal system for sample introduction for GC-MS. It provides unmatched capability and flexibility in solving your critical challenges

Key MPS Labworks Platform Features

- 10 Sample introduction techniques in standard platform
- True Trap™ technology requires only one trap for all applications
- Cryogen free trapping for target analysis
- True Enrichment for Headspace, SPME, Thermal Desorption, Twister®, TF-SPME, and Dynamic Headspace Techniques
- No valves or transfer lines (required for non-targeted analysis)
- Easy addition of sample introduction and preparation techniques
- Easy addition of more advanced analytical techniques (ODP, 1D/2D, etc.)
- GC inlet does not need to be reconfigured when switching between techniques
- Requires no additional bench space
- MAESTRO integration into Agilent Technologies software platforms

MPS LabWorks Platform Hardware Components

1. **MPS Robotic Autosampler-** automates all sample introduction techniques and sample preparation functions

2. **Thermal Desorption System**- provides analyte introduction for all types of sample matrices

3. **Cooled Injection System**- PTV type inlet that also acts as a universal trap for thermal desorption.

MPS LabWorks Platform
10 Standard Techniques

Eliminate Doubt, Discover the Unknown

Non-Target Analysis

The MPS LabWorks Platform features True Trap™ technology that provides discrimination free trapping of compounds without the need for valves and transfer lines. This is a requirement for determination of unknown compounds (non-targeted analysis). This technology can be used with Headspace, Thermal Desorption, SPME, SBSE, and TF-SPME for true compound enrichment, achieving unsurpassed detection limits.

The MPS LabWorks Platform also has sample preparation capabilities, such as internal standard addition, sample dilution, derivatization, and preparation of calibration curves.

Bonus: Sample Preparation

- Internal Standard Addition
- Sample Dilution
- Calibration Curve Preparation

CIS

1. Liquid Injection
2. Large Volume Injection
3. Headspace Injection
4. Multiple Headspace Injections

Thermal Desorption

5. Sorbent packed tubes
6. Direct thermal extraction
7. Multi-desorption mode
8. Twister®
9. TF-SPME
10. Liquid matrices in micro-vials
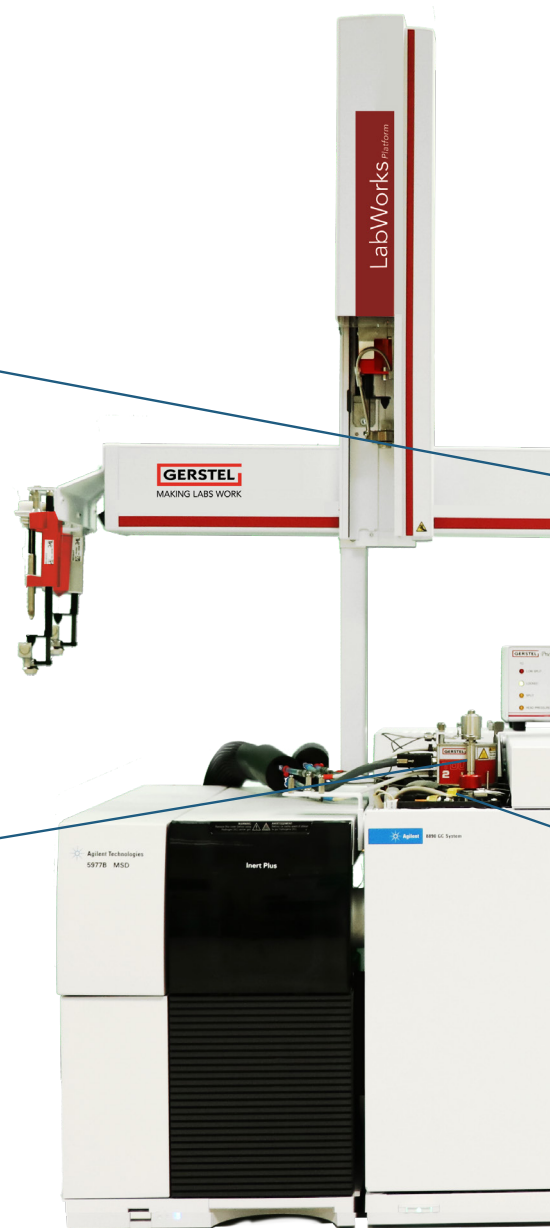
MPS LabWorks Platform
Automated Sample Introduction

MultiPurpose Sampler

■ Internal Standard Addition

■ Sample Dilution

■ Calibration Curve Preparation

Thermal Desorption

■ Sorbent packed tubes

■ Direct thermal extraction

■ Multi-desorption mode

■ Twister®

■ TF-SPME

■ Liquid matrices in micro-vials

■ Multiple SPME injection

The MPS LabWorks Platform is easily expanded so that it can perform over 30 sample introduction and preparation techniques.

![GERSTEL — MAKING LABS WORK]

The MPS LabWorks Platform is easily expanded through simple addition of modular options

Dynamic Headspace

- Full Evaporative Dynamic Headspace
- Multi-Volatile Method
- Dynamic Headspace – Large Vessel

MultiPurpose Sampler

- Olfactory Detection Port

Cooled Injection System

- Liquid Injection
- Cold On-Column Injection
- Large Volume Injection
- Multiple Headspace Injection
- SPME Injection

For the researcher trying to solve the most critical challenges, the MPS LabWorks Platform is the most powerful system available.

Over 30 Techniques

Sample Introduction Techniques

- Liquid Injection
- Cold On-Column Injection
- Large Volume Injection
- Automated Liner Exchange
- Headspace Injection
- Multiple Headspace Injections
- SPME
- SPME Arrow
- Thermal Desorption
    - Sorbent packed tubes
    - Direct thermal extraction
    - Multi-desorption mode
    - Twister®
    - TF-SPME
    - Liquid matrices in micro-vials
    - Multiple SPME injection
- Pyrolysis
    - Pulsed, Ramped, and Smart Ramped
- Dynamic Headspace
    - Full Evaporation Dynamic Headspace
    - Multi-Volatiles Method
- Dynamic Headspace Large

Sample Preparation Options

- Dilution
- Standard Addition
- Calibration Curve Preparation
- Bar Code Reading
- Filtration
- Evaporation
- Weighing
- Mixing
- Centrifugation

- Multiple SPE Options
- Sonication
- Cooled Trays and Stacks
- Custom Trays and Wash Stations

Additional Modules for Advanced Problem-Solving

- Olfactory Detection Port
- Preparative Fraction Collector
- Cryo Trap System
- Selectable 1D/2D GC for Heartcutting

Seamless Integration
with Agilent
ChemStation
MassHunter

True Trap
Core technology provides
discrimination-free trapping of
compounds without the need
for valves & transfer lines

Space Saver
Small Footprint
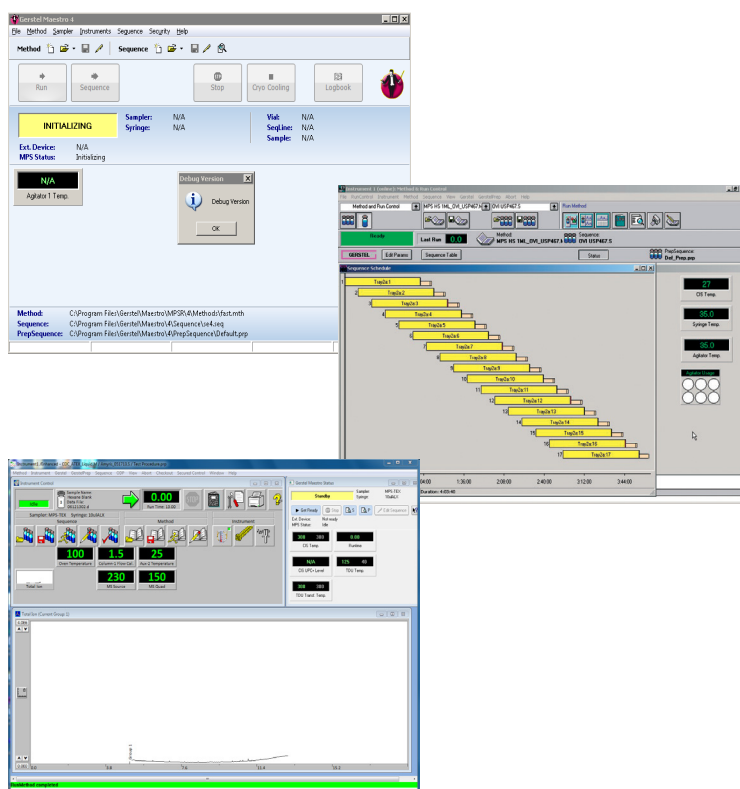All techniques mounted on GC

Non-targeted Analysis
Multiple extraction techniques
for true compound enrichment
& achieving unsurpassed
detection limits

GERSTEL MAESTRO Software

MAESTRO software is a flexible and robust platform for efficient automated sample preparation and introduction

MAESTRO–
Sample Prep by
Mouse-Click

- Maximize sample throughput and lab productivity

- Simple system operation with one method, one sequence table, and one interface

- Catch errors before they occur and protect system components

- Intuitive design and graphics enable proficiency in minutes

- Versatile platform to customize sample preparation and edit active sequences

- Guidance for successful and simplified method development and optimization

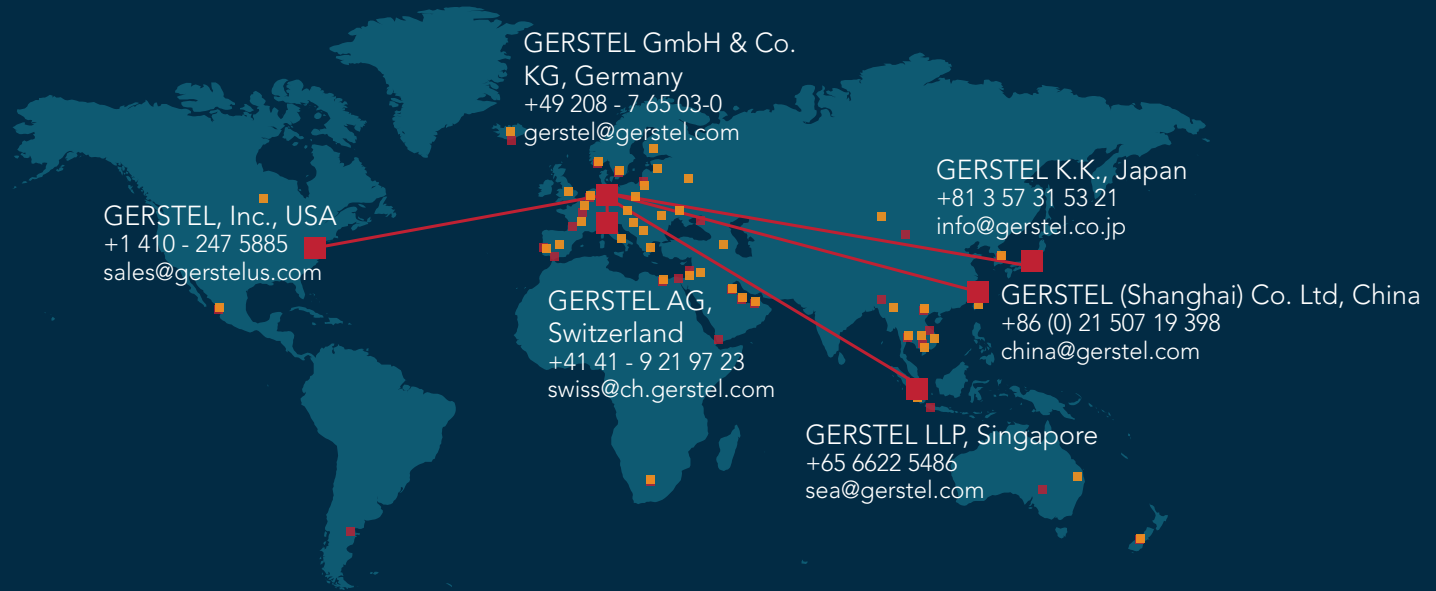| Simple User Interface | Unmatched Flexibility | Extensive Context-Sensitive Help | Advanced Sequence Scheduling and Overlapping | Comprehensive Integration | Maximum Security |

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