



**GERSTEL**

# GERSTEL Multi Position Vortex/Shaker *m*VORX

**Fully automated shaking and vortexing  
- integrated with your sample preparation**

The GERSTEL Multi-Position Vortex / Shaker option (*m*VORX) performs shaking or vortexing of samples in combination with automated sample preparation using the GERSTEL MultiPurpose Sampler (MPS). *m*VORX significantly speeds up sample preparation steps such as liquid-liquid extraction, dissolution, and homogenization resulting in more efficient GC/MS and LC/MS analysis and more reliable results.

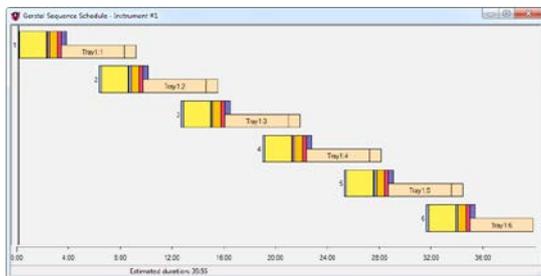
Up to several hundred samples can be processed in one automated sequence depending on the individual MPS configuration. Samples are vortexed in standard autosampler vials in batches of up to eight 2 mL vials, up to two 4 mL vials, or one 10 mL vial. No additional liquid transfer steps are needed for Vortexing, making the process both more efficient and safer. GC/MS- or LC/MS analysis and Vortexing are performed in parallel for optimum throughput. Agitation/Vortexing is performed at user defined agitation speeds of up to 3,000 rpm enabling highly flexible operation. Mixing movements are restricted to the horizontal plane, allowing even the most sensitive samples to be mixed efficiently without over-agitation or wetting of the vial cap.

Vortexing using *m*VORX can be combined with a wide variety of sample preparation and clean-up techniques such as SPE, dispersive SPE (DPX), liquid/liquid extraction, filtration, or derivatization with the significant added benefit of automated injection of the prepared sample into a GC/MS or LC/MS system directly following sample preparation.

The MAESTRO PrepAhead functionality ensures Just-In-Time sample preparation followed directly by sample introduction to the LC/MS or GC/MS for best possible productivity and throughput.



*m*VORX: Simultaneous vortexing of up to 8 samples on the MPS



MAESTRO Scheduler view of a PrepAhead sequence including vortexing and simultaneous LC/MS and GC/MS analysis.



# mVORX Features and Benefits

## Option for the GERSTEL MultiPurpose Sampler (MPS)

- Integrated sample preparation for GC/MS or LC/MS
- Stand-alone sample preparation for multiple techniques on the MPS WorkStation

## Efficient shaking/vortexing of samples and extracts under controlled conditions

- Improved extraction, dissolution and for more reliable results
- Improved sample preparation for GC/MS or LC/MS analysis

## Vortexing / Shaking in combination with other sample preparation techniques

- SPE
- Dispersive SPE (DPX)
- Liquid-liquid extraction
- Derivatization
- Centrifugation
- Filtration

## Reliable results

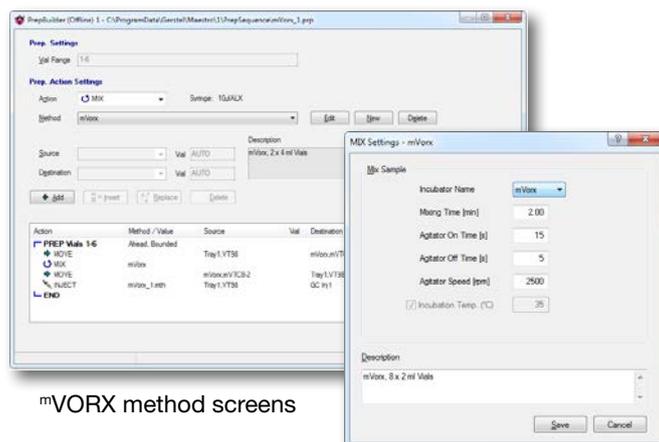
- Reproducible sample preparation through uniform processing of all samples
- User defined vortexing conditions enables flexible processing of multiple sample types in one batch
- Higher, and more uniform, extraction yields provide more reliable results
- Safe, contamination-free operation through use of sealed autosampler vials
- Reduced staff exposure to potentially toxic solvents and analytes

## Maximum efficiency

- Vortexing directly in sample vials
- No need for cumbersome manual liquid transfer
- Automated loading of 2 mL, 4 mL and 10 mL vials
- Parallel vortexing of up to eight samples
- Fast and efficient mixing at vortexing speed
- Efficient PrepAhead overlapping of vortexing, sample preparation and analysis
- Optimal utilization of the complete analysis system, best possible ROI

## Intuitive control by mouse-click using MAESTRO

- Integrated software control of complete process:
  - Sample preparation steps
  - Vortexing parameters (agitation speed, time, and intermittent vortexing)
  - Batchwise PrepAhead or single sample PrepAhead operation
  - Integrated with GC/MS or LC/MS analysis
- Only one sequence table required
- MAESTRO integration provides single method control
- Interfaces with leading chromatography software packages



mVORX method screens



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

**GERSTEL**

GLOBAL ANALYTICAL SOLUTIONS

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Awarded for the active pursuit of environmental sustainability

