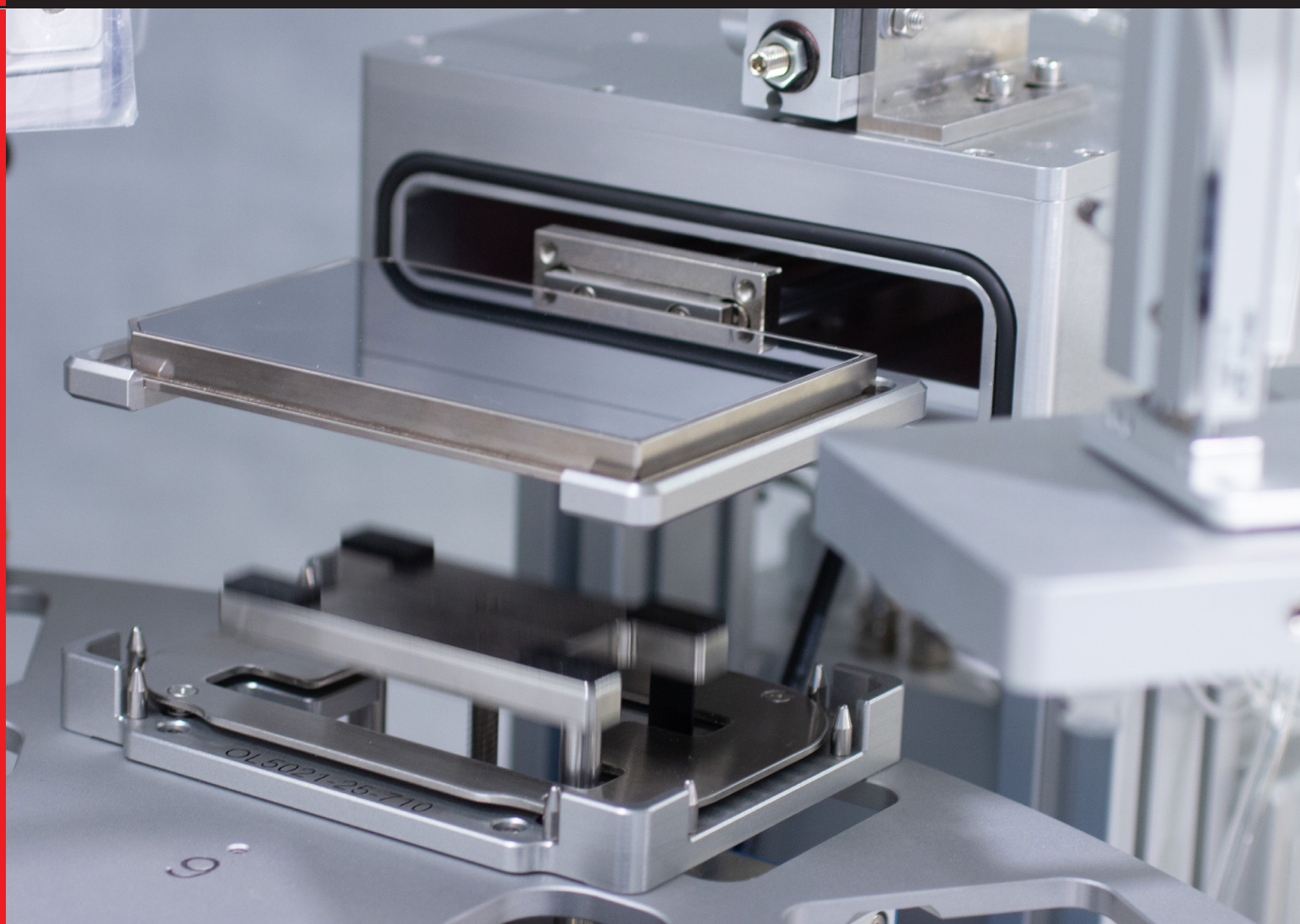


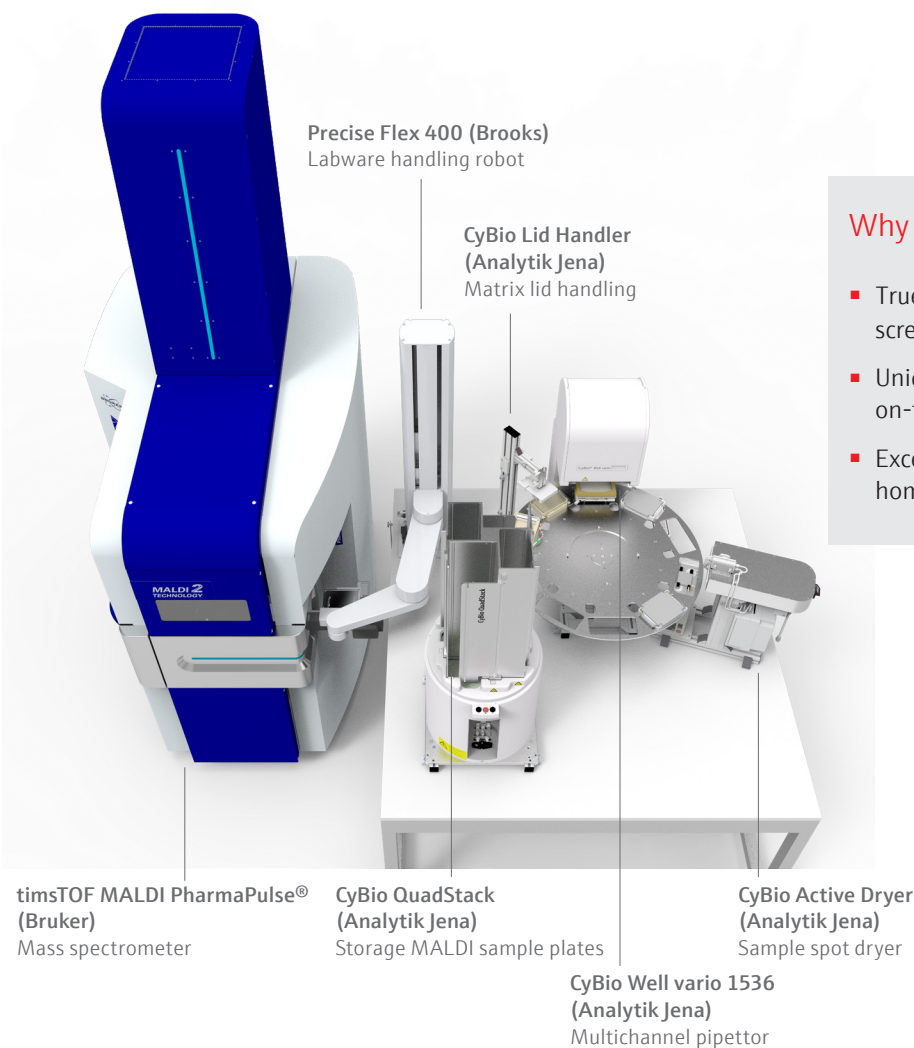
Automated High Throughput Screening uHTS MALDI Sample Preparation



Lab Automation

The Perfect MALDI-MS Solution

Analytik Jena and Bruker collaborated to develop a liquid handling automation solution for drug discovery screening. This solution combines the label-free detection capabilities of mass spectrometry with automated uHTS MALDI sample preparation. It enables ultra-high throughput screening with the integrated MS System timsTOF MALDI PharmaPulse® from Bruker.



Why our solution is unique and unavoidable

- True ultra-high throughput capability: Enables screening of 1.000.000 samples/week, and even more
- Unique process: Outstanding analysis results due to on-target washing (desalting)
- Excellent sample quality: Small assay volume and homogenous spot precision

The label-free screening process with the integrated MS system timsTOF MALDI PharmaPulse® from Bruker enables reading rates of up to 3 wells per second at ultimate assay specificity and sensitivity.

Up to 1536 matrix and sample transfers onto MALDI target plates can be performed in parallel using the flexible Analytik Jena platform. This process enables high-throughput MALDI plate preparation in less than 10 minutes.

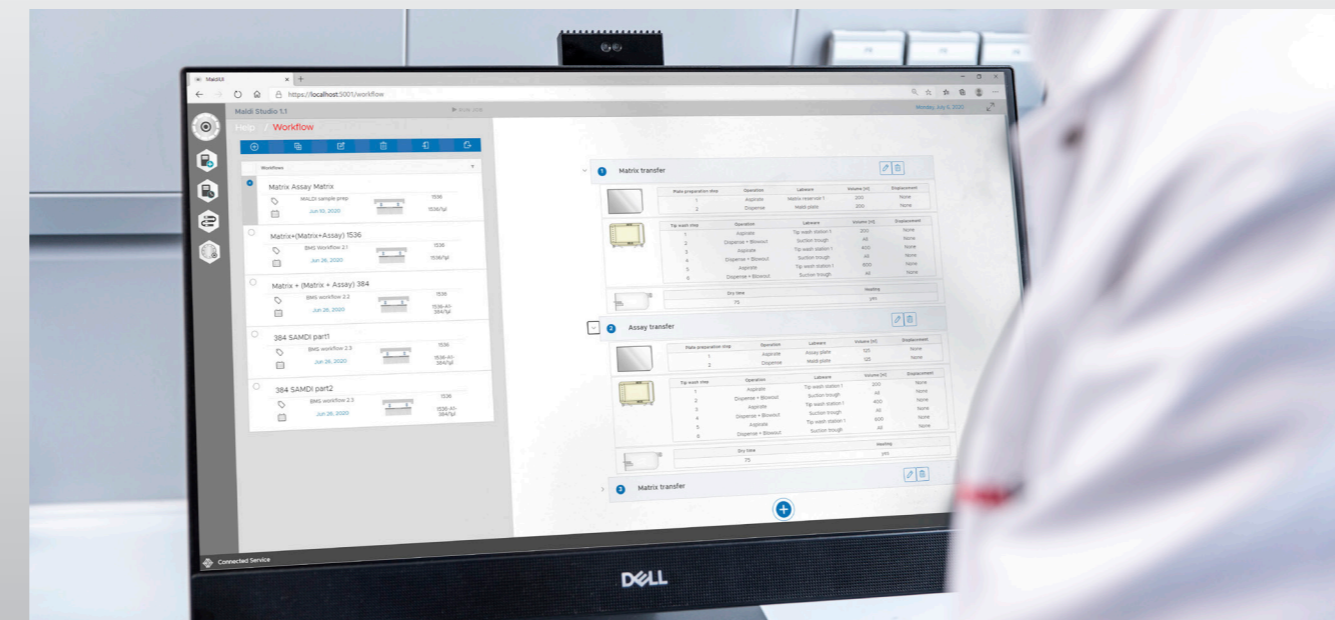
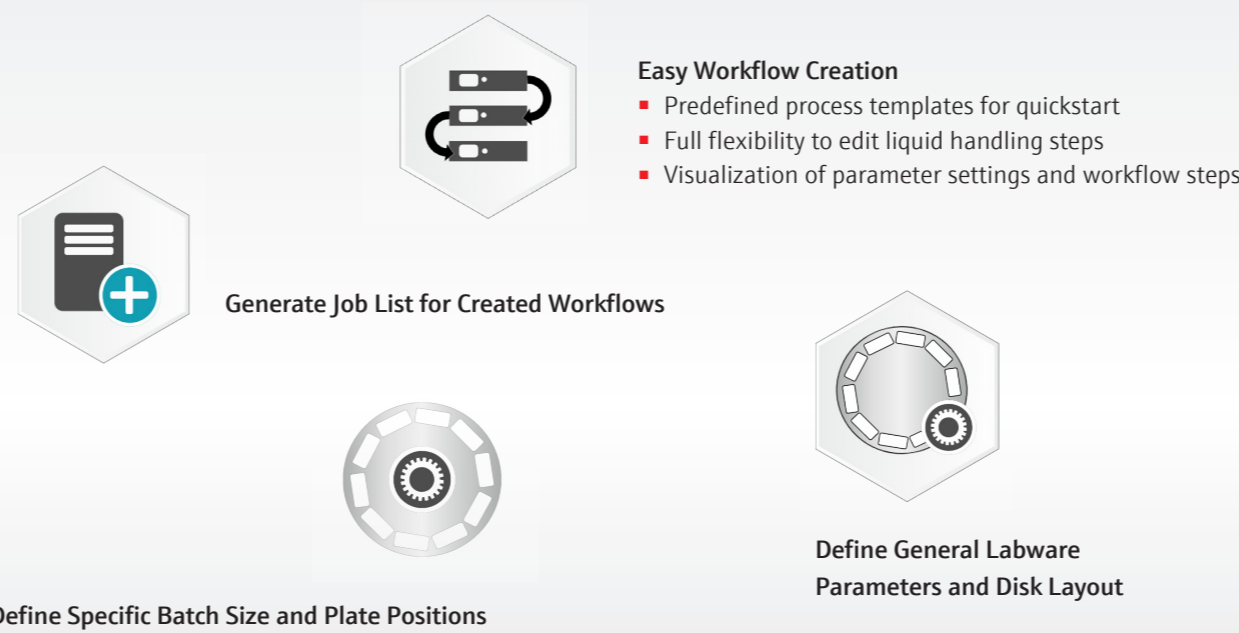
Analytik Jena's Automated High-Throughput MALDI Preparation

The automation specialists from Analytik Jena have developed an automated solution to increase throughput, assay robustness and reliability of MALDI-TOF sample preparation.

01 Matrix transfer	Simultaneous matrix transfer in 1536 format		
02 Drying and tip washing	Patented active drying for homogenous sample spots, constant process time and process parallelization		
03 Assay transfer	Simultaneous assay transfer in 1536 format		
04 Drying and tip washing	Efficient tip washing for tip multi-use without signal carry-over		
05 Matrix transfer	Matrix transfer with 1536 pipetting head		
06 Drying and tip washing	Patented active drying for homogenous sample spots, constant process time and process parallelization		
07 Optional "on-target washing"	"On-target washing" reduces adduct formation and ion suppression		
08 Export plate to Bruker timsTOF	Automated loading and unloading of the mass spectrometer		

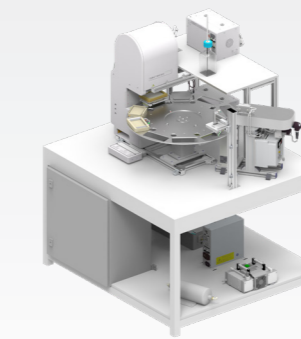
MALDI Studio: Advanced Workflow Programming

The Analytik Jena MALDI Studio programming software is the new way to program your MALDI sample preparation workflow. Due to an intuitive user interface and flexible protocols, an efficient workflow creation is guaranteed.

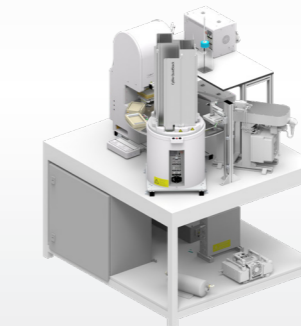


Your Choice: Possible Levels of Automation

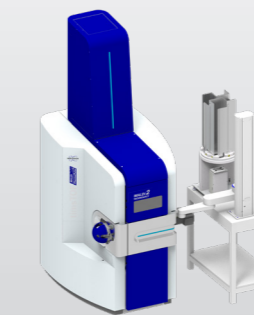
Based on your needs, the sample preparation configuration for your process can be tailored individually.



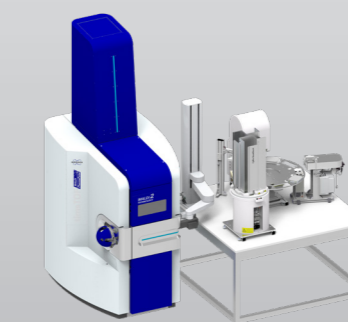
- Stand-alone workstation for sample preparation
- Available as a module for integration into robotics systems
- Prepares one ready-to-measure sample plate at a time



- Advanced stand-alone sample preparation
- Available as a module for integration
- Adds automated source and target plate storage for batch operation



- MS interface for automated plate loading and unloading
- Includes customizable plate storage
- For use with spatially separated sample preparation



- Fully automated MALDI workflow from sample preparation to MS result
- High process autonomy for ultra-high throughput screening
- Integration of additional functional components upon request

(Exemplary layout configurations)

Your Partner in Automation Solutions

Analytik Jena Automation stands for laboratory automation equipment tailored to the processes and needs of our customers. Whether lab bench automation or a fully integrated solution, we support you to increase the quality, efficiency and reliability of your laboratory processes.



Contact us
for your individual solution

Our automation specialists will be happy to advise you on your projects.

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Subjects to changes in design and scope of delivery as well as further technical development.