

ATRAS

4th Generation

Cost-efficient registration and sorting of bulk material



CONTENT

System overview

4

The modular system

6

Workflows and sample volumes are different in every laboratory. The ATRAS series takes account of these challenges. Due to its numerous configurations and options, the ATRAS series offers customized solutions for your needs.

It simply runs

16

In the daily laboratory routine, employees are constantly challenged and have to focus on the essentials. We ensure that the registration and sorting of samples runs reliably in the background. Thus, the ATRAS is designed to provide the highest productivity and quality.

Our service & support

20

Your advantages at a glance

21

T&O LabSystems

22



The ATRAS series

The ATRAS series offers a fully automated registration and sorting of laboratory samples. Processes in the sample reception area and in the entire medical laboratory can be cost-efficiently improved. The ATRAS series is a modular system and can be perfectly adapted to the requirements of any laboratory. For laboratories with a lower sample throughput, the ATRAS TS offers an optimal solution taking up a minimum of space.

SYSTEM OVERVIEW i

The 4th ATRAS generation at a glance

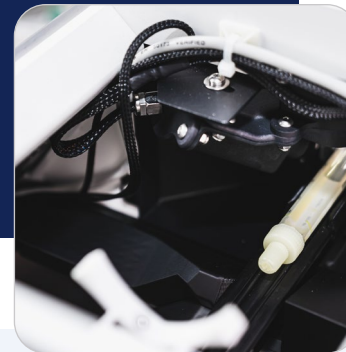
The ATRAS series offers cost-efficient bulk loading and sorting into target bins, racks and centrifuge buckets.



Centrifugation status



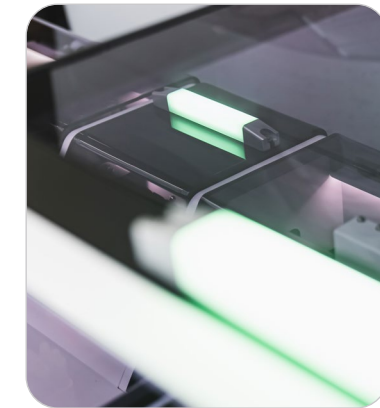
Piston detection



CapIdent



Touchdisplay



Status indicator lamp



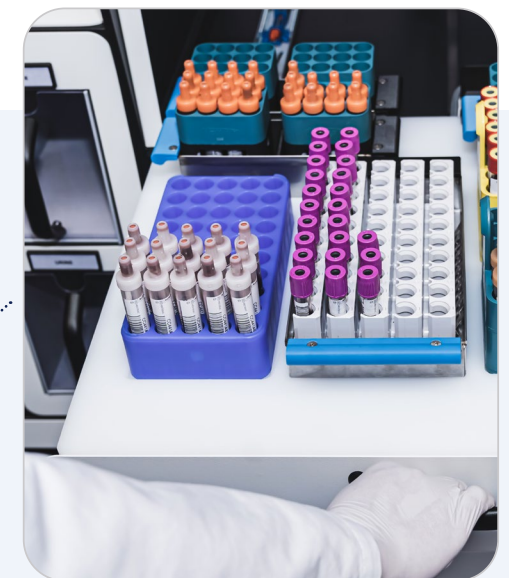
STAT Input



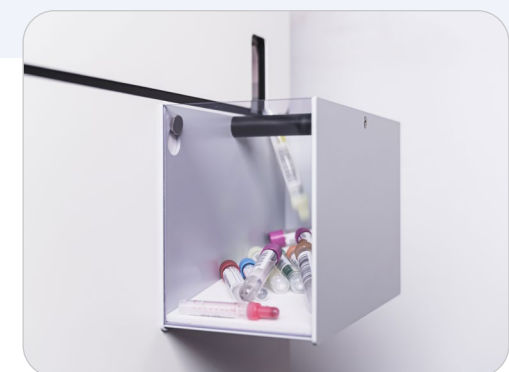
Barcode scanner



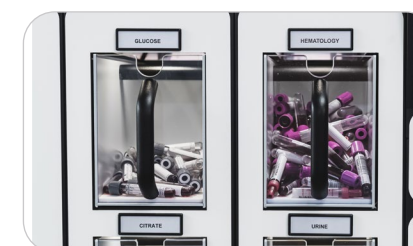
Bulk Input



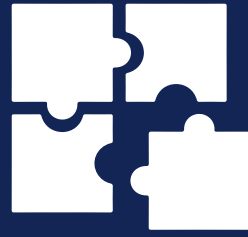
Rack area with barcode alignment



SIQ bin



Bulk Output



THE MODULAR SYSTEM

Customized solutions for your requirements

Every laboratory has different workflows and sample volumes. The ATRAS meets these challenges with numerous configurations.

Work process

Your challenge

Due to different requirements, each laboratory has established and optimized its own processes. The diversity of processes represents a challenge for the automation of preanalytics.

Our solution

Thanks to the modularity of the ATRAS, numerous processes can be reproduced and automated - from sample registration and sorting to archiving. The ATRAS is scalable and can be adapted to new requirements at any time.

Workload

Your challenge

Within a short time frame, high sample volumes have to be processed. Samples have to be registered quickly and error-free in order to be transferred to subsequent processes. In the course of this, your employees work at their maximum. The manual registration and sorting ties up capacities and can lead to mistakes.

Our solution

The ATRAS registers and sorts samples with a throughput of approx. 3,000 samples/hour and reduces manual errors. Combined with a Rack & Bulk Output module, the ATRAS offers fast bulk to rack sorting within the smallest space. For laboratories with lower sample volumes the ATRAS TS benchtop sorter offers an ideal solution.



THE MODULAR SYSTEM

The modularity of the ATRAS

Together, we configure the ATRAS in a way that perfectly suits your requirements. The ATRAS can be expanded at any time.

1

Configure the ATRAS for your processes and sample volume

Each ATRAS starts with a base unit. To this further Bulk Output as well as Rack & Bulk Output modules can be added.



The base

The Base Unit consists of a separation module and a Bulk Output module.

Bulk Output and Rack & Bulk Output modules can be freely combined. One rack area replaces 3 target bins.



Bulk Output

10 Bulk Output modules, each containing each 2 target bins, can be connected to the Base Unit. The throughput remains constant at approx. 3,000 samples/hr.



Rack & Bulk Output

One base unit can be equipped with up to three Rack & Bulk Output modules. Per module the throughput is approx. 1,300 samples/hr.*

*The total system throughput multiplies under ideal conditions for the same sorting targets with the addition of rack & bulk output modules (maximum approx. 3,000 samples/hr).

2

Equip the ATRAS according to your requirements



STAT Input

Continuous loading of urgent samples during operation with digital STAT flagging.



Piston detection

Recognition of insufficiently drawn aspiration samples to prevent interruptions on subsequent analyzers.



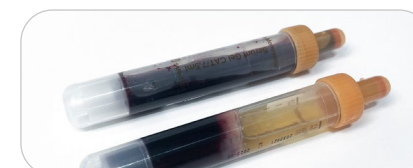
CapIdent

Best-in-class cap color detection due to an in-house developed spectral measurement.



Barcode alignment

Automatic alignment of samples for subsequent analyzers.



Centrifugation status

Identification of the centrifugation status to select the correct subsequent process.



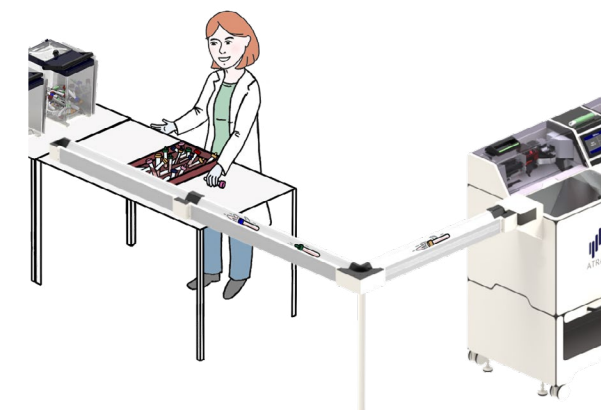
SIQ bin

Sorting out of samples in question for manual check.

3

Integrate the ATRAS into your processes

A particular high degree of automation in preanalytics can be achieved by connecting ATRAS to sample transportation systems, such as our in-house developed transport system InTrac. This allows a continuous sample flow to the ATRAS as well as to the subsequent station.





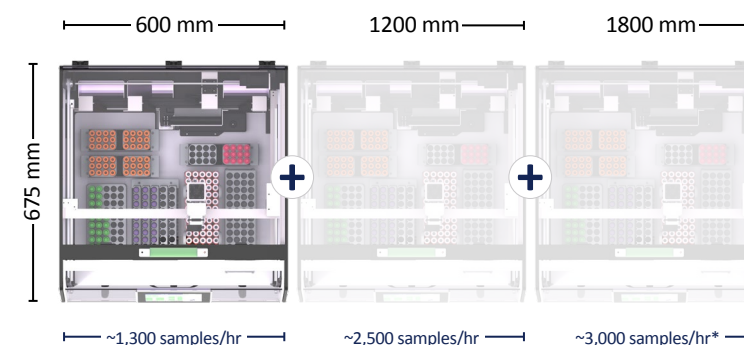
THE MODULAR SYSTEM

The Rack & Bulk Output module in the spotlight

Using a minimal amount of space, the module combines the sorting of samples into target bins, racks and centrifuge buckets.

In detail

1

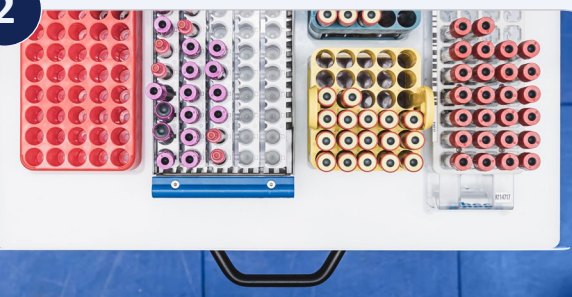


*The Bulk Input separates approx. 3,000 samples/hr

High throughput on a minimum footprint

On an area as small as a standard-sized washing machine, sorting is combined into racks, centrifuge buckets, and target bins. Adding another module doubles the usable rack area. Depending on the sample mix, this can lead to almost a doubling of throughput when using identical targets. In total, up to three Rack & Bulk Output modules can be combined in one ATRAS system. This allows a throughput of approx. 3,000 samples/hr on an area of just 1.2 m².

2



Easy access

Highly frequented racks are easily accessible without barriers. By pulling out the rack sorting area, even rear racks and centrifuge buckets are quickly at hand.

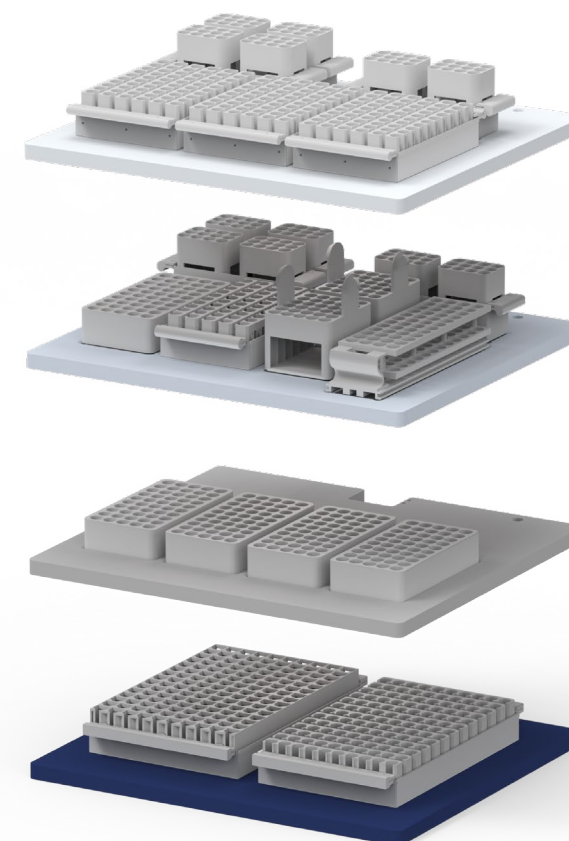
3



Independent module

Each Rack & Bulk Output module can be operated independently via the intuitive display. The status indicator lamp shows the status of the respective module. In case of a necessary intervention in the module, the overall ATRAS system continues to run.

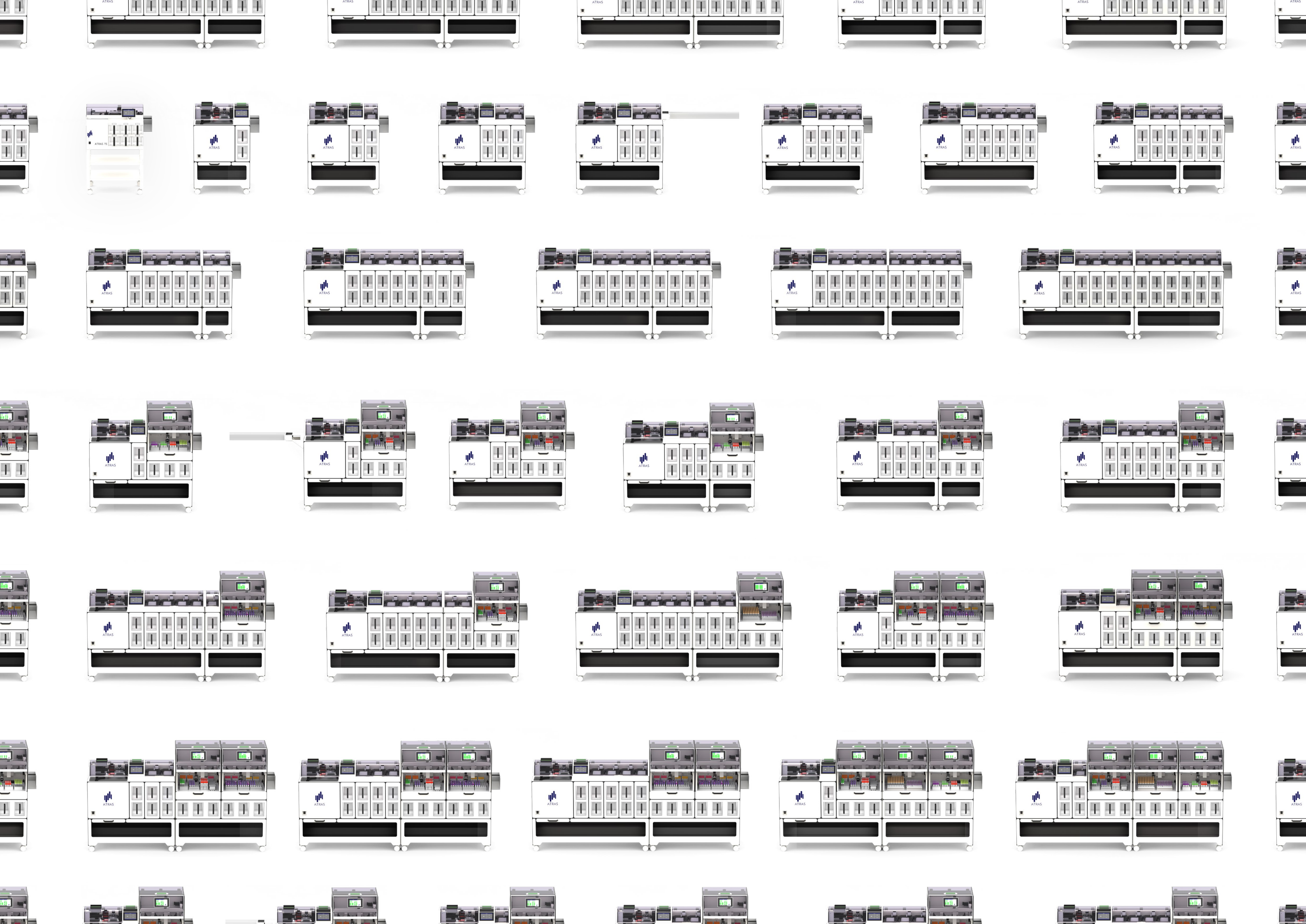
4



Endless layout possibilities

Customizable rack plate

The rack plate is freely configurable within the scope of its specifications. Customer-specific requirements can be realized.

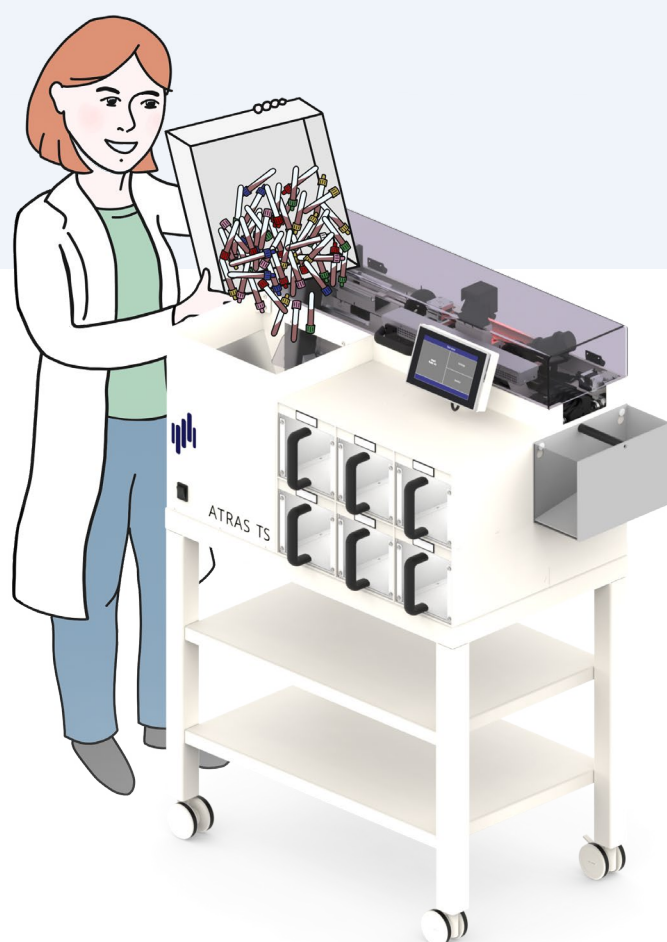




THE MODULAR SYSTEM

ATRAS TS - the smallest member of the ATRAS series

The ATRAS TS combines functionality and performance in a compact design. It is a cost-efficient solution for laboratories with limited space. With a throughput of approx. 1,500 samples/hr, the ATRAS TS ensures fast sample processing.



- Compact design, low space requirement
- Simple and intuitive operation
- Throughput of approx. 1,500 samples/hr
- All common sample tubes
- Cap color detection
- Connection to your laboratory software
- 6 target bins + SIQ bin for samples in question

What our customers say about the ATRAS series

"The ATRAS systems have significantly optimized the pre-analytical processes in our laboratories located all over Poland."

(Diagnostyka Lab Chain Group, Poland)



"A great family business to work with!"

*Annica Titzmann, Head of Sample Reception
(MVZ Labor Cottbus, Germany)*



"Thanks to InTrac and ATRAS we gained more than 30 minutes in the sample reception area."

*Norbert Brink, Laboratory Operations Manager
(MVZ Labor Muenster, Germany)*



"ATRAS relieves our employees and speeds up the processes in the sample reception area."

*Maria Suchanova, Regional manager
(Medirex Group, Bratislava)*



"The two ATRAS systems have made a small revolution in our sample reception area and have taken us to a new level of sample sorting."

*Annica Titzmann, Head of Sample Reception
(MVZ Labor Cottbus, Germany)*



"ATRAS significantly reduces repetitive manual work in the sample reception area."

*Nina Clarén, Biomedical Lab Scientist
(Clinical Microbiology Herlev, Denmark)*



"It's a real pleasure to work with ATRAS."

*Nina Clarén, Biomedical Lab Scientist
(Clinical Microbiology Herlev, Denmark)*





IT SIMPLY RUNS

Highest productivity and continuity

Years of experience, a constant exchange with customers and solid engineering are the foundation of the 4th ATRAS generation. The best sorter is the one you don't notice. It runs reliably and efficiently in the background. The operation is intuitive and simple. Just let the ATRAS run - your employees can concentrate on other tasks.

You can count on the ATRAS

Your challenge

In the daily laboratory routine, everything must run reliably and continuously. To ensure a smooth transition to subsequent processes, samples must be registered and sorted quickly, effectively as well as error-free.

Our solution

With the ATRAS, we focus on the essentials - reliability and performance. The ATRAS is already available in its 4th generation. Thanks to continuous improvements and customer feedback, the ATRAS series offers highest performance and productivity. The ATRAS simply runs and provides a reliable basis for seamless follow-up processes.

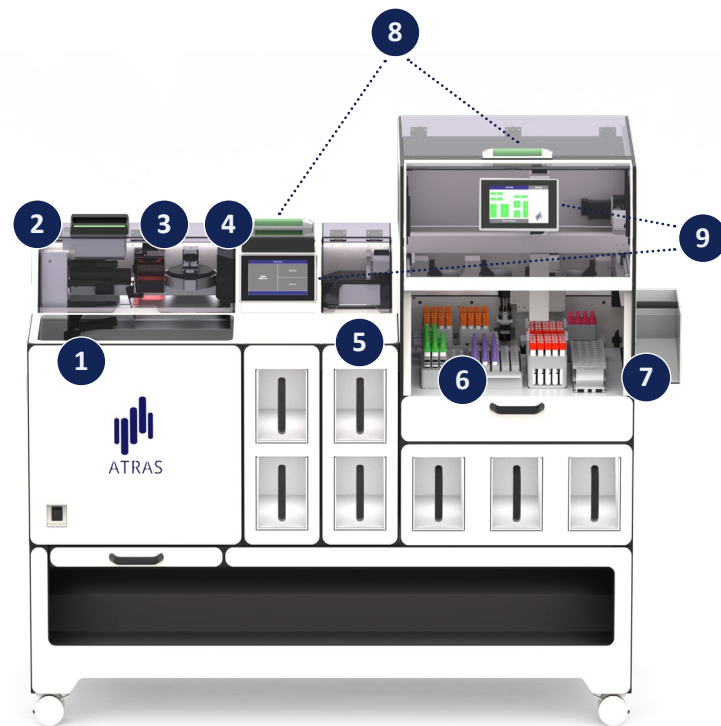
The ATRAS is simple and intuitive

Your challenge

Employees constantly operate different devices with different user interfaces. To ensure processes run smoothly, even under time pressure, intuitive operation is necessary. Disturbances that require intervention in the device must be identified and fixed quickly and easily.

Our solution

The ATRAS is a transparent system with intuitive operation. Samples are visible at all times and can be easily removed after processing. Essential information is immediately and easily accessible. Necessary interventions are indicated via status indicator lamps and signal tones. Troubleshooting assistance is provided directly on the display. The induction training is quick and straightforward. Thanks to the simple operation of ATRAS, employees can set up tube types for cap color identification by themselves.



IT SIMPLY RUNS

Follow the sample

The ATRAS is a transparent system. Explore the details that lead to the high productivity and continuity of the 4th ATRAS generation.



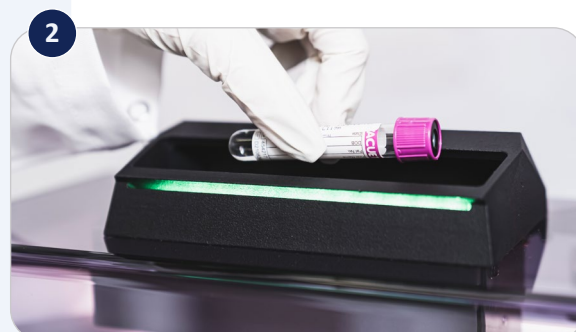
Simply fill the ATRAS

Samples can be ongoingly placed in the ATRAS.



Continuously load the ATRAS

The generous hopper is designed in consideration of the FIFO principle and facilitates loading.



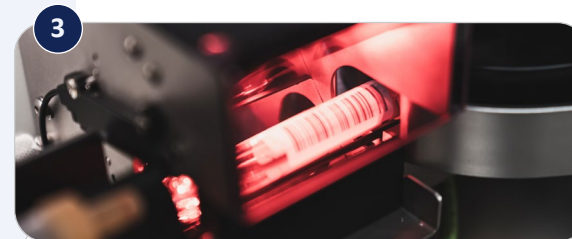
Use the STAT input for urgent samples

Urgent samples are prioritized in the registration and sorting process by bypassing the hopper. A digital STAT flag is sent to the LIS.



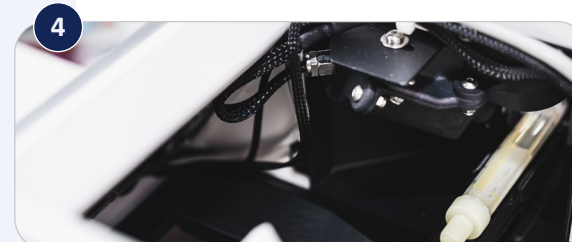
Load STAT samples without any compromise in throughput

The sample flow is not interrupted and the throughput remains at a high level.



Fast and reliable registration

Samples are registered on the fly by a highly efficient barcode scanner.



Best-in-class sample detection

Thanks to an in-house developed spectral measurement, the cap color is precisely identified. In addition, the diameter and length of a sample tube are measured.



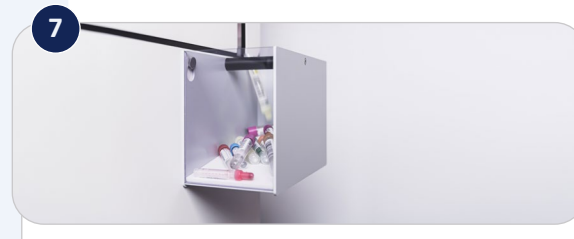
A target bin that fits your preference

Up to 200 samples fit into the lightweight and robust target bin. Integrated light barriers prevent overfilling. Even when a bin is removed, the ATRAS keeps on running.



All racks within reach

Highly frequented racks are barrier-free accessible. Rear racks can also be accessed quickly thanks to the pull-out rack area.



Simple check of SIQ samples

SIQ samples are directly sorted out for manual check.

Simple and intuitive



Detect the status immediately

A status indicator lamp and signal tones intuitively indicate whether bins are full or an intervention is necessary.



Operate the ATRAS intuitively

All essential information of the last 500,000 samples can be quickly accessed via the touchscreen. Users can easily teach the machine new cap colors.



Control the rack area easily

Each Rack & Bulk Output module is equipped with an intuitive touch screen. Status and configuration can be instantly captured. Necessary interventions are displayed right away while the overall system continues to run.

SERVICE & SUPPORT

Overall carefree with our service offerings

Highest reliability is the prerequisite for a smooth laboratory operation. We guarantee a fast, fair and personal service. By this we mean solution-oriented and unbureaucratic assistance. For this purpose we offer two service concepts.

Full maintenance contract

- Installation by our service technicians
- User induction training
- On-site service
- Spare parts supply
- Adaptations to changing laboratory processes
- Annual maintenance



First-Line-User-Concept

- Installation by our service technicians
- Training of your laboratory's in-house technicians to become first-line users
- Second-Level-Support
- Spare parts supply



AT A GLANCE

Highlights of the ATRAS series

Unmatched modularity

Sorting into target bins, racks and centrifuge buckets (p. 8, 10, 14, 18)

Connection to sample transport systems like InTrac (p. 9)

Scalable and adaptable system (p. 8, 10, 12, 14)

Perfectly adapted to your workload

approx. 3,000 samples/hr for sorting into target bins (p. 8, 19)

Fast bulk-to-rack sorting on a minimum footprint (p. 8, 10)

Individualized rack area (p. 11, 19)

STAT Input for urgent samples (p. 9, 18)

Features such as piston detection, barcode alignment and identification of centrifugation status (p. 4, 5, 9)

Direct sorting out of SIQ samples into an external SIQ bin (p. 9, 19)

Perfectly matched to your requirements

Best-in-class sample detection (CapIdent) (p. 9, 19)

Highly efficient barcode scanner (p. 19)

Continuous loading during ongoing operation (p. 14, 18)

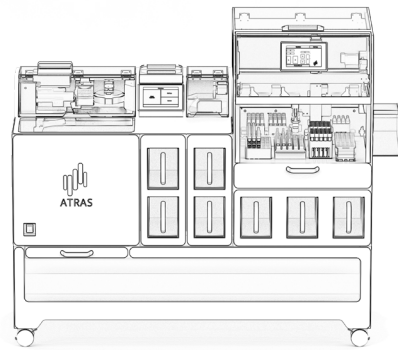
Productive and reliable

Intuitive touchscreen and status indicator lamp (p. 11, 19)

Simple set-up of new tube types (p. 19)

Good accessibility due to transparent system (p. 8, 10, 18)

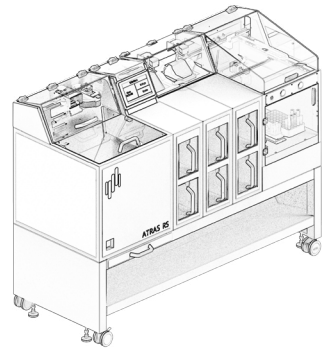
Simple and intuitive



2021

4th generation

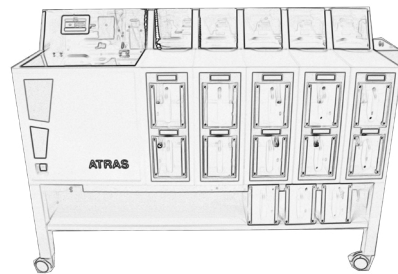
- Increase of throughput by approx. 40%.
- Connection to transport systems, like InTrac
- Introduction of the Rack & Bulk Output module



2018

3rd generation

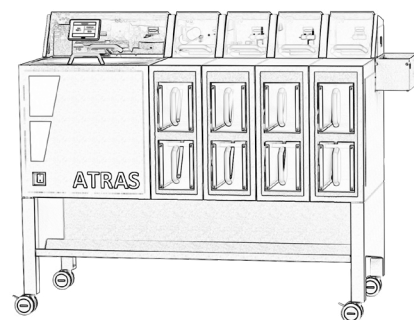
- Increase of throughput by approx. 25%
- Basis for various OEM developments
- Numerous new features (e.g. STAT Input)



2014

2nd generation

- Further developments based on customer feedback
- Improved reliability and robustness
- Introduction of the first Rack Output modules



2012

1st generation

- First series production of the ATRAS
- A modular system right from the start
- Delivery of the first units



2009

- Foundation of the company T&O LabSystems
- Start of the development of the ATRAS series



Dennis Lorenzen

Dave Lorenzen

Tom Lorenzen

T&O LABSYSTEMS

A family business in the 2nd generation

Responsiveness and fairness are the core foundations of our business relations.

“A great family business to work with!”

Annica Titzmann, Head of Sample Reception
(MVZ Labor Cottbus, Germany)



