



FE500pro™

Fast, reliable and compact pre-analytical tube handling – setting standards in pre-analytics

Fast, reliable and compact pre-analytical tube handling

Laboratories are faced with pressure to yield rapid, reliable results. Validation and accreditation of processes has become as important as traceability and accuracy of results. Innovative testing equipment places further strain on already scarce laboratory space.

Safe working practices are always an issue, especially in a clinical setting. Samples have to be protected against cross-contamination to guarantee the accuracy of the results and, often, the health of patients. Erroneous results could lead

to incorrect treatment for patients and loss of reputation for the laboratory. Confidence of laboratory personnel in the safety environment prevents costly corrective actions.



Key Benefits of the FE500pro

Reduces costs by efficiently using your sample

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Saves laboratory space by integrating all the pre-analytic functions

page 4

Improves process security by providing total sample supervision

page 5

Increases safety by reducing manual tube handling

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Tecan is committed to developing and producing all the instrumentation you need

For over 25 years, Tecan has been recognized globally as a market leader in developing and producing automated systems for laboratory processes. Today, over 5,000 of our platforms are used routinely in laboratories worldwide for applications within the life sciences, pharmaceutical, forensic testing, as well as clinical and veterinary diagnostics fields, including hospital and private laboratories and blood banks.

Could your workflow be more efficient? FE500pro reduces costs

Making your workflow more efficient

Manually handling hundreds or thousands of samples per day is a tedious task, yet requires meticulous and well trained staff. Mistakes can be costly and dangerous to both staff and patients.

The FE500pro can help to reduce costs by making processing safer and more efficient.

Aliquoting is dictated by your laboratory information system (LIS) and the FE500pro generates the required number of secondary tubes to allow parallel processing of patients' samples resulting in higher efficiency



Reduction of turnaround time

Working with an integrated centrifuge that reduces human interaction efficiently uses the resources available. By aliquoting your primary sample, the analytical process can be started simultaneously on several analyzers.

Reduction of cost for primary tubes

The systems various sample checks ensure the most efficient use of your primary sample available. This results in a reduction of costs for primary tubes.

Exact number of secondary tubes for your analysis

The intelligent aliquoting on the FE500pro enables you to create the number of aliquots you need with exactly the volume specified to complete your analysis.

Optimizing the way you work

The Tube Inspection Unit detects liquid and separation levels, even through labels, allowing accurate pipetting and optimizing use of the sample available. If insufficient sample is available, secondary tubes are transferred to a manual worktable to allow correction.

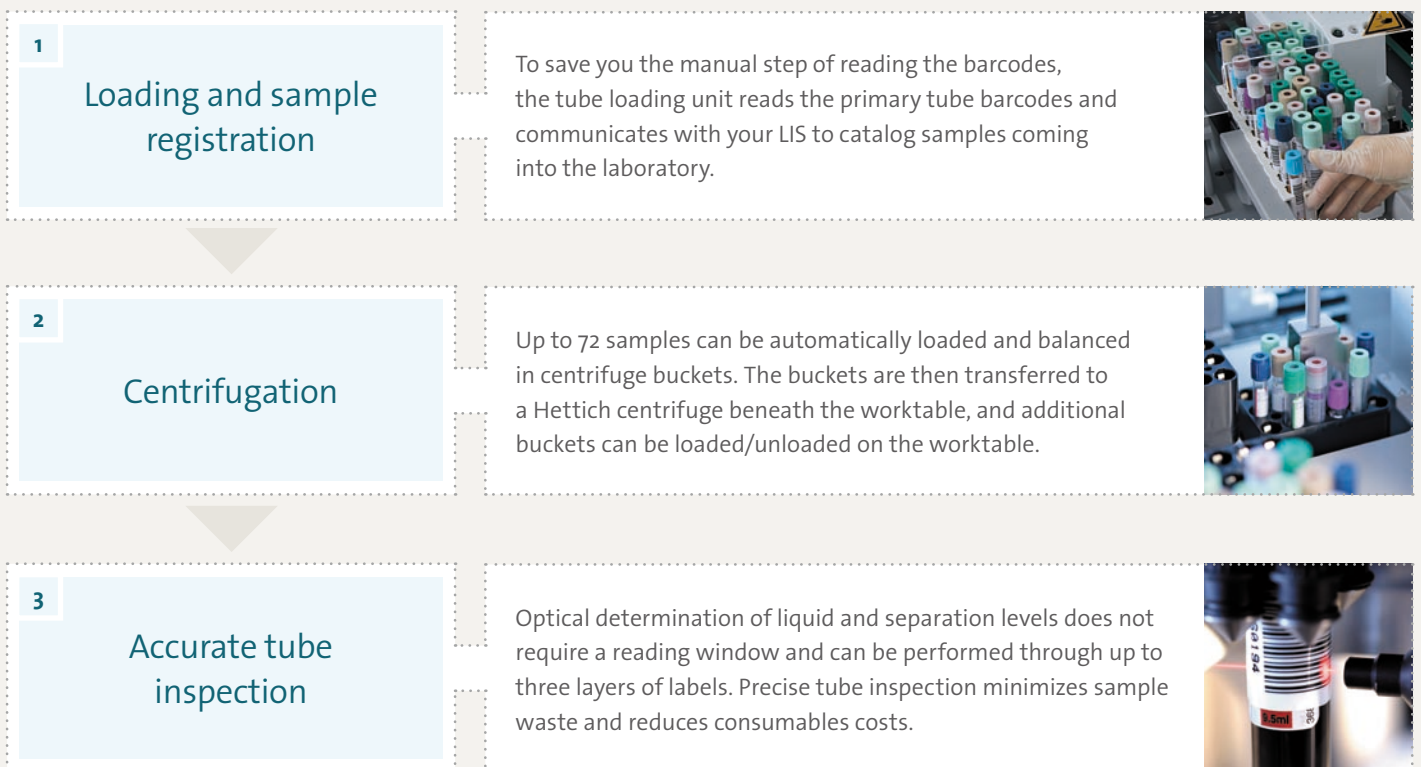
How much does a square meter in your laboratory cost? FE500pro saves laboratory space

The increasing demand for space in both the public and private sectors has made laboratory space an expensive commodity. Today's laboratories are obliged to accommodate more and more instrumentation. Efficient use of the available space is now a priority.

The FE500pro has one of the most compact footprints of any front end system combined with the highest integration of functionalities in the industry. It is the ideal solution for overcrowded laboratories where equipment such as registration stations and centrifuge farms are cramped together.



The FE500pro incorporates the following features into an instrument with a footprint of less than 2.5 m² (23 sq.ft.):



Grow with your needs

The centrifuge, the tube inspection unit, the de-capper and the secondary tube labeling and the aliquoting modules are optional. The instrument can be configured to meet your needs and be upgraded later if so needed

How much does a lost sample cost you? FE500pro improves process security

A lost sample costs far more than a tube and a barcode label. What about the working hours spent searching for lost tubes or obtaining new samples? Or the effect on the laboratory's reputation?

A smooth completion of all the pre-analytical steps is guaranteed with the FE500pro's constant sample monitoring and bi-directional communication with the LIS.

Samples are assigned to multi-tube pucks in the FE500pro. The barcode on the puck and the presence of individual tubes is checked at every station, ensuring reliable sample tracking and providing an electronic audit trail.



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De-capping

The FE500pro's de-capper is compatible with most primary tubes on the market. De-capping occurs inside an aerosol-protected shielding to prevent cross contamination and increases sample safety.



5

Preparation of secondary tubes and aliquoting

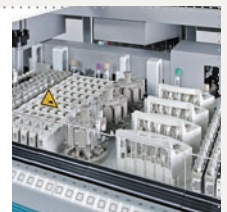
Sample requirements are determined by direct interrogation of the LIS, and secondary tubes are aliquoted and labeled automatically. The secondary tube labeler can accommodate more than 1,500 tubes and up to 8,500 labels. The primary and secondary tube barcodes are verified prior to pipetting.



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Racking of tubes directly into analyzer racks and unloading

The FE500pro can load tubes directly into various analyzer racks for the immediate use on the corresponding instruments downstream in the laboratory.



Following your sample

Eight barcode scanners and over two dozens of sensors constantly monitor your sample as it moves through the process. Routing information is visible and an audit trail is created to make your process as reliable as possible.

How do you protect staff against infection? FE500pro increases safety

Protecting laboratory staff, cleaning personnel and even visitors from infection is crucial. Failure to minimize infection risks the reputation of the laboratory, the health of individuals and serious financial repercussions.

Cross-contamination of samples can lead to poor or incorrect treatment of patients, and could result in the unnecessary spread of infectious disease. By automating the pre-analytical processes, human interaction with the samples is reduced and the risk of infection and cross-contamination is decreased significantly. In addition, the FE-500pro supports the following safety features:



Operator safety

The worktable is enclosed by acrylic panels, and the use of loading trays protects the operator from coming into contact with moving robotic arms. Dedicated unloading carriers are designed to avoid contact between the operator and moving parts or de-capped samples.

Automated monitoring

The FE500pro monitors processes requiring operator action, such as refill of consumables or waste removal. When such action is required, only affected modules are de-activated, allowing action to occur safely without reducing the throughput of unaffected modules.

Safe distance

The two-lane conveyor system avoids cross-contamination between tubes and allows individual samples to bypass modules, maximizing flexibility and throughput.

Keep it safe

Locks, sensors and shields are key components to maximise the safety of your laboratory staff. Using the FE500pro, manual handling of open tubes can be reduced to a minimum or even be avoided entirely. Closed tubes are fed using a loading rack and after the process removed in analyzer's racks.

How do you keep your instrument in shape? Services and consumables

Smooth operation of the FE500pro is guaranteed with tested and validated Tecan consumables and three preventive maintenances per year. The consumables are manufactured according to the highest quality standards and under controlled conditions.

Tecan supplies all the consumables needed for the FE500pro:

- Disposable tips (filtered disposable tips highly recommended)
- Secondary tubes
- Printer label set
- Caps for secondary tubes
- Waste bags



Speaking your language



Preventive maintenance

The instrument is serviced three times per year where wear and tear parts are replaced; the instrument is cleaned and tested to make sure the operation is reliable and meeting your expectations.

Te-Care Service Contracts

The Te-Care Service contracts are as flexible as you are. Ranging from a repair contract to extend your instrument's warranty to complete contracts including maintenance, repair, and priority treatment - your Te-Care contract can be tailored to your needs. Please contact your local Tecan office for more details.



Competent Support

With our worldwide network of qualified service engineers and local helpdesks, we can ensure professional preventive maintenance and competent help if you need it.

Genesis FE500pro™ requirements and specifications

Accepted primary tube format

Supported manufacturers: BD®, Greiner®, Sarstedt®, Kabe™, Terumo®
Venoject®, Venosafe®, Hemoguard™ and many screw cap formats
Dimensions: from 11.5 x 65 mm to 16 x 100 mm, Material: glass and plastic tubes

Secondary tube specifications

13 x 75 mm polystyrol tubes

Software

Performance:

- Windows®-based graphical user interface
- Sample allocation
- Disposable status monitoring
- Online help
- Error help
- Validation procedure

Graphical user interface available in languages:

English, French, Italian, Spanish, German, Swedish, Portuguese

Host interface

Performance:

- Standard bi-directional ASTM interface. With optional interface connections through TCP/IP (HL 7) possible.
- Easy switch between LIS and non-LIS mode

Specifications:

- Standard ASTM protocol E1394-97

Throughput

Total throughput: up to 500 tubes per hour

Dimensions

FE 500:

Length: 2.29 m/90"

Height: 1.72 m/67.1"

Depth: 0.93 m/36"

Weight: max. 620 kg/1364 lbs Front: 1.00 m/39"

Clearance:

Left: 0.40 m/15.6"

Right: 0.40 m/15.6"

Rear: 0.80 m/31.2"

Front: 1.00 m/39"

Installation requirements

Electrical:

Voltage: 398 to 415 VAC, 2L/N/PE, 50 Hz; 191 to 220 VAC, 2L/N/PE, 60 Hz

UPS strongly recommended

Designed to meet UL/CSA and In Vitro Diagnostic Directive 98/79/EC

Operating environment:

Temperature: 15 to 32 °C/59 to 90 °F

Humidity: 30% to 80% relative

(Non-condensing) at 30 °C/86 °F

Air conditioning strongly recommended

Air Supply:

Minimum 7 bar/101 psi

Free of oil and water

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