



WEIGHING SOLUTIONS
SPECTROMETRY
INDUSTRIAL LABORATORY SOLUTIONS
SCANNING ELECTRON MICROSCOPY
MICROSCOPY & IMAGING SYSTEMS
IVF & GENETICS
TESTING INSTRUMENTS
MICROBIOLOGY LABORATORY SOLUTIONS
OPERATIONAL ENVIRONMENT SOLUTIONS
FILTERS & CHEMICALS



LABORATORY & INDUSTRIAL SUPPLIES

CHOICE OF EXCELLENCE

CHOICE OF EXCELLENCE

TAAWON GROUP

Taawon Group is specialized in the supplies of excellence level of high quality, compatible and best value laboratory and industrial equipment, disposables & chemical products in different market segments such as pharmaceuticals and bio-pharmaceuticals, food & beverage, chemicals & petrochemicals, oil & gas, academic institutions & reseatch centers, IVF & geneticas labs, hospitals & medical labs, environmental & testing labs and last but not least forensics labs.

Taawon Group was established in 2008 where the headquarter is based in Jordan and the group has expanded its activities internationally to reach Saudi Arabia (Diamond Spectrum), United Arab Emirates (Altayf Althahabi) and Poland (Parameter EU). This was a result of the emerged need for a local supplier of laboratory supplies has arised and increased.

We are focused at customers needs and we place their expectations at the central of our plans and actions. We understand the similarities and differences of markerts worldwide thats why we actively and continuously seek out improvements to the local and global markets.

We understand customers interests and deep concerns which we support to meet their goals with conviction. We embrace our work by adopting a target-focused, process-oriented and solution-driven approach besides facilitating cooperation among employees and customers. We value our customers by listening carefully, playing an active role and offering critical analysis as well as addressing conflicts dealing with them sensibly.



TABLE OF CONTENT

TAAWON GROUP	
ABOUT TAAWON GROUP	iii
WEIGHING SOLUTIONS	
LABORATORY WEIGHING SOLUTIONS	1
ANALYTICAL BALANCES	2
PRECISION BALANCES	2
MICROBALANCES & ULTRA MICRO BALANCES	3
AUTOMATED POWDER & LIQUID DOSING	5
MOISTURE ANALYZER	5
MASS COMPARATORS	7
INDUSTRIAL WEIGHING SOLUTIONS	8
BENCH SCALES, FLOOR SCALES & PALLET SCALES	9
SCALE INDICATORS, LOAD CELLS & SOFWTARES	10
SOFTWARES AND SCALES DRIVERS	12
INDUSTRIAL LABORATORY SOLUTIONS	
ANALYTICAL INSTRUMENTS	13
TITRATORS & PH METERS & DENSITY METERS	14
UV/VIS SPECTROPHOTOMETER & REFRACTOMETERS	15
MELTING POINT & DROPPING POINT	16
THERMAL ANALYSIS	23
LABX SOFTWARE	26
THERMAL CONDUCTIVITY	28
PIPETTES & LIQUID HANDLING SYSTEMS	29
PIPETTES	30
HIGH-THROUGHPUT SYSTEMS & ACCESSORIES	31
SCANNING & IMAGING SYSTEMS	
SEMS, FIB-SEMS AND MICRO-CT'S	33
SCANNING ELECTRON MICROSCOPY (SEM)	33
FOCUSED ION BEAM SCANNING ELECTRON MICROSCOPY (FIB-SEM)	33
MICRO-CT SYSTEMS	34
DETECTORS	34
ATOMIC SPECTROSCOPY	
ATOMIC SPECTROSCOPY AND MEASUREMENTS	35
ATOMIC SPECTROSCOPY	36
PARTICLE MEASUREMENTS	37
MASS SPECTROSCOPY	
SPECTROMETRY & CAPILLARY ELECTROPHORESIS	38
TRIPLETOF® MASS SPECTROMETER SYSTEMS	39
X500 QTOF MASS SPECTROMETER SYSTEMS	40
TRIPLE QUAD™ LC-MS/MS SYSTEMS	41
TOF/TOF SYSTEMS	42
CAPILLARY ELECTROPHORESIS	42
ION MOBILITY SPECTROMETRY	43

TABLE OF CONTENT

TESTING INSTRUMENTS	
MATERIAL IDENTIFICATION	46
PORTABLE ANALYTICAL INSTRUMENTS	47
PHARMACEUTICAL TESTING	50
DISSOLUTION	51
GALENIC INSTRUMENTS	52
HANDHELD & FULLY AUTOMATIC TORQUE TESTERS	54
CAP TESTERS	55
HOMOGENIZERS	56
MIXING, DISPERSING, AND EMULSIFYING	57
GENERAL LABORATORY	
MISCELLANEOUS	58
ENVIRONMENT MONITORING SYSTEMS	
TEMPERATURE & HUMIDITY MEASURING & MONITORING	60
DATA LOGGERS, TRANSMITTERS & PROBES	61
ROTRONIC MONITORING SYSTEMS (RMS)	63
PARTICLE COUNTING & MONITORING	64
AIR & LIQUID PARTICLE COUNTERS & SENSORS	65
CLEAN AIR & CONTAINMENT SYSTEMS	67
ENVIRONMENT CONTROL SYSTEMS	
CHAMBERS, ROOMS, CONDITIONERS & BATHS	68
CHAMBERS	69
ROOMS	70
CONDITIONERS & BATHS	71
ISOLATOR WITH HYDROGEN PEROXIDE VAPOR TECHNOLOGY	72
CONTAINMENT SOLUTIONS	73
TOC, MERCURY ANALYZERS & ICP-OES	
PRODUCTIVITY-ENHANCING INSTRUMENTATION	74
TELEDYNE TEKMAR	75
TELEDYNE LEEMAN LABS	75
MICROBIOLOGY LABORATORY SOLUTIONS	
STEAM STERILIZATION APPARATUS & SYSTEMS	77
STERILIZERS & WASHERS	78
MEDIA PREPARATION & DISPENSING AND LIQUID HANDLING	80
TEMPERATURE, CLIMATE & ENVIRONMENTAL SIMULATION CHAMBERS	81
PROCESS & LABORATORY CONSUMABLES & DISPOSABLES	
FILTRATION SOLUTIONS, CHEMICALS & REAGENTS	83
PROCESS STERILE & NON-STERILE FILTRATION SOLUTIONS	84
CHEMICALS & REAGENTS	86
INSTALLATION, QUALIFICATION, VALIDATION & REPAIR	88



WEIGHING SOLUTIONS

METTLER TOLEDO

LABORATORY WEIGHING SOLUTIONS

Complete outstanding quality and functionality are delivered through METTLER TOLEDO's comprehensive range of laboratory balances and analytical instruments that provides users with flexibility and precision.

LABORATORY WEIGHING SOLUTIONS

ANALYTICAL BALANCES

Get the ultimate combination of high performance, reliability, robust and ease-of-use with METTLER TOLEDO's **analytical and semi analytical balances** that measure mass to the highest degree of precision.

Covering a wide range of readability from 0.002 mg to 0.1 mg, minimum weight down to 16 mg and capacities from 41 g up to 520 g. You also have the choice to upgrade your balance with powder and liquid dispensing modules and benefit from fully automatic weighing, solution preparation and dilutions as well to the wide range of accessories of dosing modules, printers, software, density kits, antistatic solutions and much more!

Analytical balances are divided into three main levels:

- Excellence Level Balances; Capacity up to 320 g, minimum weight down to 6 mg and 1.6 mg and readability down to 0.002 and 0.01 mg.
- Advanced Level Balances; Capacity up to 220 g and 320 g, minimum weight down to 30 mg and readability down to 0.01 mg and 0.1 mg.
- Standard Level Balances; Capacity up to 220 g, minimum weight down to 160 mg, readability down to 0.1 mg.



PRECISION BALANCES

Find all your weighing needs in METTLER TOLEDO's **Precision balances** from reliability and high-precision weighing to robustness and handling of harsh industrial conditions.

Covering a wide range of readability from 0.1 mg to 1 g, minimum weight down to 820 mg and capacities from 4.2 kg up to 64 kg. Set up LabX® software for seamless integration and to ensure data integrity of the balance.

Precision balances are divided into three main levels:

- Excellence Level Balances; Capacity up to 64 kg and 32 kg, minimum weight down to 120 mg and 820 mg and readability down to 0.1 mg - 1 g and 1 mg - 1g.
- Advanced Level Balances; Capacity up to 12.2 kg, 32.2 kg and 6.2 kg, readability down to 1 mg and 0.1 g.
- Standard Level Balances; Capacity up to 5.2 kg, 4.2 kg and 6.2 kg, readability down to 1 mg - 0.1 g, 1 mg and 0.01 g.



LABORATORY WEIGHING SOLUTIONS

MICROBALANCES & ULTRA MICRO BALANCES

METTLER TOLEDO's **microbalances and ultra-microbalances** weigh even the smallest amounts of samples instantly with great performance and high quality.

A micro balance or ultra-microbalance can deliver the highest precision of all lab balances. This high sensitivity in micro balance design allows for the weighing of sample quantities with weight as low as 30 µg.

Microbalances offer a capacity of up to 10.1 g with readability down to 1 µg (0.000001g).

Ultra microbalances offer an incredible full resolution of 61 million digits, with a capacity of 6.1 g and 0.1 µg readability (0.0000001g).

Mettler Toledo's portfolio includes a micro-analytical balance. It has a readability like a micro balance, 1 µg, and the shape of an analytical balance, with an outer and inner weighing chamber.

The XPE micro-analytical balances deliver the highest capacity, coupled with the lowest possible minimum weight . This enables dosing of very small amounts directly into a "large" tare containers.

Micro and Ultra-Microbalances features:

- Capacity up to 10.1 g and 52 g
- Readability down to 0.1 µg
- Minimum weight down to 1.2 mg according to USP
- Modern and user-friendly interface
- Ensured data integrity with LabX
- Smallest footprint for space-saving
- Static free samples
- GWP approved



LABORATORY WEIGHING SOLUTIONS

EXCELLENT DECISIONS DEPEND ON PRECISE WEIGHING



Automated dosing with Quantos powder and liquid dispensing modules enables you to achieve the highest level of accuracy and safety in sample preparation. It can also reduce minimum weight by up to %30.



Specialized **weighing pans** can make the difference between a process that is easy and repeatable and one that is not

Draft shields provide environmental protection which is important when using balances with fine readability less than 0.001 g

RFID accessories ensure error-free data transfer between your balance and sample containers, pipettes and automation systems.



Whether you want continuous results **printing** or sample **labelling** with IDs and bar codes, all your laboratory printing needs are covered. Just plug your unit in and start printing

The **StatusLight™** built into the terminal uses color to indicate intuitively the status of the balance: Green means ready, yellow is a warning and errors are shown in red.



LabX® software brings power to your laboratory bench with automatic data handling, high process security and full SOP user guidance. Full step-by-step guidance is brought directly to the instrument touch screen.



LABORATORY WEIGHING SOLUTIONS

AUTOMATED POWDER & LIQUID DOSING

METTLER TOLEDO offers a wide range of **automated powder and liquid dosing and dispensing** instruments with highest accuracy and safety.

Mettler Toledo's Automated Powder and Liquid Dosing features:

- 1 High resolutions of 0.1 mg, 0.01 mg, 5 µg and 1 µg
- 2 Fully automated process with unattended sample preparation
- 3 Up to 30 samples can be dispensed in one run
- 4 Full Traceability with RFID and barcode identification
- 5 Automated powder dispensing from 1 mg to grams static-free
- 6 Automatic data handling with SOP user guidance
- 7 Ease-of-use
- 8 Contamination-free dosing with one head for each powder
- 9 Highly accurate concentrations



MOISTURE ANALYZER

METTLER TOLEDO's wide range of **moisture analyzers** are reliable, easy-to-use and high quality with highest measurement performance.

Mettler Toledo's Moisture Analyzers features are:

- 1 Reliable results thanks to precise temperature control with halogen heating technology.
- 2 Consistent measurement performance thanks to robust construction, comprehensive service offering and built-in performance tests.
- 3 Intuitive operation with stepwise user guidance to prevent errors in daily operation
- 4 Versatile data transfer and data management
- 5 User-friendly operation
- 6 Convenient reporting with barcode reader for ID management



LABORATORY WEIGHING SOLUTIONS

MOISTURE CONTENT IS NOT TO BE OVERLOOKED

Free access – **Rugged by design**

Free, unobstructed access to the weighing chamber from all sides simplifies handling of samples



Halogen heating guarantees accurate temperature control between 230-40 °C



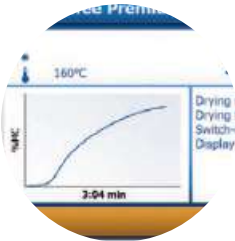
The HX204 can be adjusted and tested at **operating temperature**, ensuring that the instrument is performing optimally under your specific working conditions.



Flat stainless steel surfaces, Easy to clean and robust



Real-time **drying curve** for Progress overview



Bright and sharp **touch-screen** that is Easy to read with Graphical user guidance Intuitive for anyone to operate



Professional level of moisture analyzers come with an **innovative hanging weighing pan** concept which moves the weighing cell away from spilled samples and from the heat of the sample chamber, and improves measurement results by eliminating adverse thermal effects on the weighing cell.



Aluminium sample pans and glass fiber filters are suitable for all applications to ensure best repeatability

LABORATORY WEIGHING SOLUTIONS

MASS COMPARATORS

Vacuum Mass Comparators

Used by National Metrology Institutes to improve their measurement accuracy by performing mass determination at constant pressure or vacuum.

The METTLER TOLEDO M_one and M_10 are designed for various artefacts with results accurate to within 100 nanograms, whilst offering unique flexibility features.



Automated Mass Comparators

Solutions like AX automated weighing systems meet the highest accuracy requirements - up to 0.1 µg resolution and capacities of up to 64 kg. Errors are eliminated due to software-controlled automatic operation of the -4place weight handlers. Measurement data is securely stored and handling effort minimized.



Robotic Mass Comparators

These comparators allow you to avoid a time-consuming and labor-intensive process of manual weight calibration.

Automating process with METTLER TOLEDO's e_Line and a_Line mass comparators provides traceability and assured results in significantly less time.





WEIGHING SOLUTIONS

METTLER TOLEDO

INDUSTRIAL WEIGHING SOLUTIONS

METTLER TOLEDO is also specialized in the high-performance industrial and process scales, interfaces, software, and accessories. These industrial scales and systems are designed to be the most innovative, accurate and reliable systems of their kind.

INDUSTRIAL WEIGHING SOLUTIONS

BENCH SCALES, FLOOR SCALES & PALLET SCALES

Bench Scales and Portable Scales

Mettler Toledo's Bench Scales and Portable Scales for maximum efficiency in industrial applications.

The broad range of bench and portable scales includes:

- InVision Smart Scale with error-free operation.
- Bench Scales for a wide range of applications.
- Counting Scales for counting application.
- Checkweigher Scales for over/under checkweighing applications.
- Automotive Paint Mixing Scale.
- Industrial Basics Scales for basic weighing applications.
- SmartShelf Weighing Pad for remotely monitoring of inventory.



Floor Scales and Heavy-Duty Scales

Mettler Toledo offers maximized uptime and increased productivity with scales that features highest accuracy, guaranteed precision, the ability to weigh anywhere, easy loading and cleaning and rugged construction built for industrial harsh environments.

Mettler Toledo wide variety of floor scales and heavy-duty scales:

- Industrial Basics Scales for basic weighing applications
- Floor Scales / Floor Scale with Ramp for heavy-duty weighing
- Pallet, Pallet Truck and Mobile Scales
- Hanging Scales



Pallet, Pallet Truck and Mobile Scales

Mettler Toledo's Pallet Scales & Pallet Scale Calibration are easy-to-use and accurate thanks to the following features:

- Rugged construction with hot-galvanized steel or stainless steel
- long-term durability.
- Long-term industrial reliability and accuracy
- Safe, simple and easy loading procedures.
- Corrosion/explosion resistant.
- Shock absorbers that ensure secure, accurate weighing.
- OIML approvable
- Range of resolutions that assures complete flexibility.



INDUSTRIAL WEIGHING SOLUTIONS

SCALE INDICATORS, LOAD CELLS & SOFTWARES

Scale Indicator & Scale Controller Systems

Mettler Toledo offers a variety of scales indicators and scale controller systems:

- Tank, Silo, Hopper and Bin Scale Indicators
- Vehicle Scale Indicators for vehicle and rail-weighing
- Bench, Portable and Floor Scale Indicators
- Hazardous-Area Applications Scale Indicators
- Custom Programmable Scale Indicators
- Scale Indicators and Transmitters for OEMs and System Integrators



Load Cell, Weigh Module, Load Sensor

Mettler Toledo's weigh modules, load cells and weight sensors and tailor made to the needs of instrument and machine manufacturers. Weight sensor / high precision load cells features high accuracy, high speed, weigh modules. Mettler Toledo offers a range of load cell, compression weigh module, load sensor, tension weigh modules, beam load cells, ring load cells and S load cells.

- Tanks on concrete or steel foundation.
- Wide capacity ranges from 5 kg up to 300 ton per weigh.
- Versatile usage for most industries.
- Reliable performance.
- Stainless steel version for food and pharma usage.



Softwares for Formulation & Statistical Quality Control

FreeWeigh.NET offers all relevant tools to avoid underfilling and comply with legislations including 21 CFR Part 11 Modules and Audit Trail. Also, it analyzes weighing data to continuously monitor critical process parameters. Its modular license model allows system adoption for any need.

FormWeigh.Net reduces operator errors and material waste to a minimum which results in more predictable manufacturing and greater profitability. It also delivers process transparency and automated batch evidence reporting. Easily achieved adherence to global food safety standards as well as full compliance with 21 CFR Part 11 for pharmaceutical and nutraceutical industries.



INDUSTRIAL WEIGHING SOLUTIONS

ALWAYS ROBUST, ACCURATE & RELIABLE

Bar code Scanner Input devices simplify material lot and batch tracking



Configure equipment, **create and manage recipes** and orders, generates track and trace data and reports



Meaningful diagrams help users to identify quality issues in the production process.



terminal prints batch data automatically and on demand



Hinged load plates are supported by **pneumatic springs** to guarantee safe opening and closing and provide fast access for service



Lifts **reduce downtime** required for cleaning which increases productivity



The robust **load-cell housing** features integrated overload protection and durable mechanical interfaces.



The built-in **lever and bearing mechanical structure** ensures the scale maintains peak performance, regardless of the application.

Weighing Platforms can be directly connected to any automation system.



For optimum **corrosion prevention**, the entire platform is made out of high-grade stainless steel



INDUSTRIAL WEIGHING SOLUTIONS

SOFTWARES AND SCALES DRIVERS

FormWeigh.Net

Recipe Management and Material Dispensing System that provides complete control over the recipe management and material dispensing process, which helps to ensure that each batch is made accurately and efficiently. Operator errors and material waste are eliminated resulting in greater profitability and predictable manufacturing.



FreeWeigh.NET

A Statistical Quality and Process Control is a PC based software solution that allows to control and fine tune perfectly customer production process. Modular license model allows system adoption to any needs. Flexibility and ease of use allows further optimization of production, increase quality and productivity.



Data Collection and Monitoring Softwares

Mettler Toledo Provides a whole range of softwares like the Edge Device that Provides seamless and secure exchange with Cloud, ERP and MES systems. The softwares enable Data Collection and Visualization, Data Management, Data Configuration, Data Backup and Data Restore



INDUSTRIAL LABORATORY SOLUTIONS

METTLER TOLEDO

ANALYTICAL INSTRUMENTS

METTLER TOLEDO's analytical Instruments solutions for potentiometric titrators and Karl Fischer titrations focus on ease of use, flexibility and productivity. From basic handhelds to flexible multi-channel meters, METTLER TOLEDO offers a full spectrum of premium quality pH, conductivity, DO and ion meters as well as refractometers and UV/VIS Spectrophotometers.

As the technology leader in thermal analysis instrumentation We offer an innovative product range that includes Differential Scanning Calorimeters (DSC), Thermogravimetric Analyzers (TGA), Thermomechanical Analyzer (TMA) and Dynamic Mechanical Analyzers (DMA), as well as an unmatched, very powerful common Thermal Analysis software platform

ANALYTICAL INSTRUMENTS

TITRATORS & PH METERS & DENSITY METERS

Volumetric, Potentiometric & Karl Fischer Titrators

Mettler Toledo offers a complete range of titrators and accessories to cover your whole titration applications:

- Excellence Titrators with complete application range including Karl Fischer and full user and data management including FDA 21 CFR 11 with LabX software.
- Potentiometric Compact Titrators that are suitable for expert and routine user groups and pre-programmed optimized method setup.
- Karl Fischer Titrators with volumetric and coulometric autotitrators, Easy One Click water determination and InMotion Karl Fischer oven autosampler for full automation
- High-throughput titration systems with autosampler systems and liquid handling automation.



pH and Conductivity Meters

These meters include the measurement of ion concentration, ORP and dissolved oxygen as below:

- Benchtop pH meter for the highest precision and solid compliance.
- Portable pH meter for mobile pH applications in the lab and field.
- Analytical sensors for measurement of pH, ORP, conductivity, ion concentration & DO.
- pH standard solutions to ensure high measurement precision.
- pH automation & software for higher productivity and solid compliance.



Density Meters

Mettler Toledo's wide range of accurate, fast and intuitive benchtop and portable digital density meters are divided into the following types:

- Excellence density meters that measure almost any sample with high reliability and guaranteed precision
- Standard EasyPlus density meters that assure high accurate results
- Portable density meter that measures different types of samples within seconds.
- Automated density measurement for increased results repeatability and reliability.
- Multiparameter system which measures all parameter at once for increased data quality.



ANALYTICAL INSTRUMENTS

UV/VIS SPECTROPHOTOMETER & REFRACTOMETERS

Spectrophotometer UV/VIS

Mettler Toledo's UV VIS Micro-Volume Spectrophotometry features:

- Wide concentration ranges without further dilutions.
- Secure locking of the arm during measurement.
- Automatic or manual pathlength selection.
- Ergonomic Design that allows a comfortable and safe workflow.
- Open access to the sample area.
- Fast and easy cleaning of the instrument with the removable stainless steel top cover.
- The ability to choose between two measurement modes.
- Easy and intuitive way to run tasks with One Click Operation.
- The instrument can be operated as stand-alone with no need of PC.
- Compact versatile layout of optical components.



Refractometer

Mettler Toledo's digital refractometers (Brix meters) are designed for use in the production line and in the laboratory and can convert the measured refractive index into other units like HFCS, alcohol %, Brix and more.

Mettler Toledo's digital refractometers:

- Excellence refractometers that measure any sample with high reliability and precision.
- Standard EasyPlus refractometers with remarkably simple user interface & accurate results.
- Portable refractometers that can be used in the lab and on-the-go.
- Automated refractometry measurement
- Multiparameter system.
- Refractometry software & accessories.



ANALYTICAL INSTRUMENTS

MELTING POINT & DROPPING POINT

Melting Point Apparatus

There is no need for continuous visual observation with our Excellence Melting Point Systems. The measurement is done fully automatically, detection of transmitted light combined with video observation ensures that the melting point, melting range, slip melting point, boiling point, and cloud point measurements are reliable.

- Simple One Click™ Operation

The One Click™ user interface enables users to start measurements with a single click of the button.

- Color video recording

With the high resolution on-screen video, measurements can be observed in real time or conveniently replayed to verify the results.

- Trusted performance

The instrument offers automatic detection of melting, boiling, cloud, and slip melting points all in one.



Dropping Point Apparatus

Mettler Toledo's Dropping Point Excellence Systemvv facilitates the measurement of the dropping point or softening point of pitch, asphalt, resins, and many more materials. Manual determinations can be performed automatically, and videos and results are stored on the instrument or can be exported to a network.

- Simple One Click™ Operation

The One Click™ user interface enables users to start measurements with a single click of the button.

- Color video recording

With the high resolution on-screen video, measurements can be observed in real time or conveniently replayed to verify the results.

- Trusted performance

With the visual camera observation and digital image analysis, highly accurate dropping/softening point temperatures are obtained fully automatically.



ANALYTICAL INSTRUMENTS

EXCELLENCE TITRATORS



Sensors and burettes are **automatically recognized** when connected. Avoid errors by eliminating extra data entry steps and reduce instrument setup time.



Accurately measure water in liquid or solid samples from %0.001 to %100.



Users are able to **customize their screen** and short-keys and access these to start analyses and workflows quickly and easily

The **SmartChemicals** accessory enables instant wireless transfer of titration chemicals' identity and shelf life data to the titrator.



Automatic burette recognition feature ensures that all quality relevant data such as concentration, titer and expiration date are promptly read in and checked, irrespective of the drives on which the burettes with the titrants are present.



Compact titrators support an **automatic Rondolino sample changer**. Analysis of up to 9 samples plus automated cleaning and conditioning functions speed up your daily tasks.



The **password-protected** user management system coupled with user rights guarantees that critical data cannot be changed by mistake

ANALYTICAL INSTRUMENTS

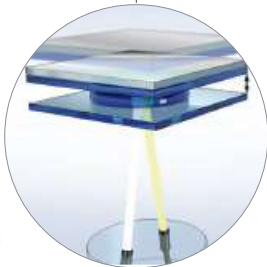
UV VIS SPECTROSCOPIC WORKFLOWS

LockPath ensures that the available wathlengths at 0.1 and 1 mm are accurately defined. Thanks to the rugged patented design, pathlength drift is excluded.



Fully automated **multi-parameter measurements** e.g.:

- Determination of absorbance at specific wavelength, pH, and acidity of drinking water.
- Determination of absorbance at specific wavelength, pH, acidity, Brix



FastTrack UV/VIS technology comprises modern fiber optics in combination with array detection and a Xenon flash lamp. A full spectrum scan is performed within just 1 second.



Exceptional ruggedness and reliability, thanks to the **lack of moving parts in the optical section**, long-lasting Xenon flash lamp and state-of-the art optical fibers. Their flexible connectivity to printers, PC, storage devices and barcode scanners, make UV/VIS.



Spectrum **scans**, fixed **wavelength absorption** measurements, quantification with **calibration curves** or **kinetic analyses** are ready to use as direct measurements: Simply enter parameters, define the preferred workflow, store as a shortcut, and start the measurement with One Click.

ANALYTICAL INSTRUMENTS

SELECTIVE & EXCELLENT FOR EXPANSION



Offering the highest possible flexibility as you can **expand the instrument** at any time, adding new measurement parameters



it is possible to use our perfectionION™ series of combined ion selective electrodes as well our collection of half-cells. For measurements with half-cell sensors there is an input for connection of a reference electrode.



ISM sensors are automatically identified by the instrument, preventing the use of the wrong sensor ID by mistake



USB, Ethernet and RS232 interfaces allow the connection of a barcode reader, Rondolino sample changer, USB stick, network and METTLER TOLEDO printers and a PC with LabX direct software



The **optional uMix™ magnetic stirrer** provides an extra degree of flexibility for methods

Stirring can be setup individually for measurement or waiting steps in your method and the stir speed adjusted to reflect the sample's vessel size and viscosity.



By a single keypress you can switch **between two different views** with varying degrees of information



INDUSTRIAL LABORATORY SOLUTIONS

AUTOMATED REFRACTOMETRY



Regular calibration with certified and traceable standards ensures accurate measurements. Start verification immediately without the need to manually enter additional texts: simply scan in the barcode on the standard, and run the calibration



Fill and rinse the measuring cell with the **SPR200 sampling pump**. Utilize the DryPro drying pump for quick and efficient drying of your density meter.



The **status light** will show if the instrument is ready (green), busy (flashing), or waiting for operator interaction (orange).

The **Peltier thermostat** maintains the measurement cell at a constant temperature, enabling highly accurate density and refractive index measurements.



Accurate and reliable **results**
Brix, refractive index and more: Our refractometers master measurements of a wide variety of challenging samples with high repeatability and an accuracy of up to 5 decimal places



The **large touchscreen** terminal with the intuitive One Click user interface minimizes training and operator influence. Simply press on the pre-programmed shortcut to run your analysis. The instrument status light will show you if it is ready, busy, or waiting for operator interaction.

ANALYTICAL INSTRUMENTS

AUTOMATIC DETERMINATION



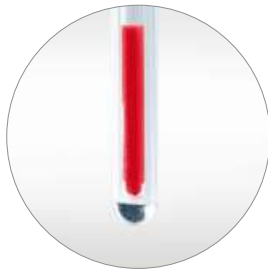
Boiling Point

The boiling point is a characteristic physical property of a compound. Knowing the boiling point of a liquid can help in selecting the optimal process temperature.



Cloud Point

The cloud point is defined as the temperature at which an aqueous solution becomes turbid or "cloudy". Knowing the cloud point helps in determining the best performance temperature range.

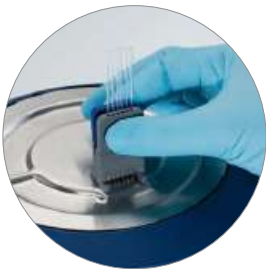


Slip Melting Point

The slip melting point is the melting point of waxy solids and is defined as the temperature at which a sample has softened sufficiently to rise in an open capillary tube. It is used to characterize cosmetics, fats and many others



The **unique design** allows you to insert the capillaries directly into the instrument.



With the Excellence Melting Point System, you can run **up to six samples** simultaneously, saving you valuable time and effort.



One Click™ determination is as simple as it sounds: all you need to do is press a button to start your measurement. Clicking the "Home" button on any menu takes you directly back to the initial screen.



Measurement results can be influenced by the operator. Save time and money and reduce operator training and influence with **fully automatic determination** of melting, boiling, slip melting, and cloud points.

ANALYTICAL INSTRUMENTS

MULTIPARAMETER

LiquiPhysics™ Excellence can combine more than density and refractive index. The systems can also be flexibly upgraded to measure pH, conductivity and color simultaneously.

The UV/VIS Excellence line encompasses **three models for cuvette measurements** and one dedicated micro-volume instrument for life science applications.

- Using **pressurized air** instead of suction enables reliable sampling of highly viscous samples (up to 000'36 mPa*s) and prevents bubble formation.
- The **measurement cell** is automatically rinsed with one or two different solutions
- **Sample protection:** Vials can be sealed and opened just before the actual measurement.
- Superior sampling, Simple and efficient cleaning and Sample protection.



Our **space-saving** system enables you to combine a density meter with a refractive index cell to measure both parameters in one go

intuitive touchscreen operation and high measurement performance combined with a complete security package for safe results and solid compliance



With **Smartcodes™**, LiquiPhysics™ Excellence takes a decisive step forward in barcode reading initiatives



Versatile
The **powerful SC1 and SC30 automation** units can completely automate the measurements of such products, even for samples that are solid at ambient temperature.

ANALYTICAL INSTRUMENTS

THERMAL ANALYSIS

Differential Scanning Calorimetry (DSC)

the DSC instruments are the best choice for manual or automatic operation, from academic research and industrial development to quality assurance and production.

Measure samples with the most sensitive DSC on the market – ideal for investigating all kinds of materials and effects

The DSC utilizes an innovative patented DSC sensor with 120 thermocouples which guarantees unmatched sensitivity.



Chip Calorimetry (Flash DSC)

The Flash DSC +2 revolutionizes rapid-scanning DSC. The instrument can analyze reorganization processes that were previously impossible to measure. The Flash DSC +2 is the ideal complement to conventional DSC. Heating and cooling rates now cover a range of more than 7 decades.

Take advantage of the fastest commercially available DSC – perfect for studying rapid crystallization and reorganization processes in a temperature range from –95 to 1000 °C.



High Pressure Differential Scanning Calorimetry (HPDSC)

Increased pressure influences all physical changes and chemical reactions in which a change in volume occurs.

Study thermal effects under pressure – increase the reaction rate or shift evaporation to higher temperature

For material testing, process development or quality control there is often no alternative to DSC measurements under pressure.



Thermogravimetric Analyzer (TGA)

TGA instruments deliver trustworthy results using the world's best micro and ultra-micro balances with sub-microgram resolution over the whole measurement range.

Routine measurements are started quickly, safely and easily with the unique One Click™ function from the instruments' color touchscreen display. Sample identification can be done with a bar code reader.

Efficient and reliable operation around the clock is ensured by the robust, factory endurance tested sample robot.



ANALYTICAL INSTRUMENTS

THERMAL ANALYSIS

Simultaneous Thermal Analysis (TGA/DSC)

The TGA/DSC +3 provides trustworthy results using a TGA balance from the worldwide leader in weighing technology with position independent weighing, automatic internal calibration weights, a wide measurement range, the best minimum weight performance and the highest weighing accuracy and precision. It allows users to analyze a wide variety of sample types up to 1600 °C.



Thermomechanical Analysis (TMA)

The TMA/SDTA +2 can be used for a wide range of applications due to its broad temperature range and the wide choice of force parameters in compression and tension modes. As a result, the TMA/SDTA +2 quickly provides characteristic information on numerous types of samples, for example very thin layers, large sample cylinders, fine fibers, films, plates, soft or hard polymers, and single crystals.



Dynamic Mechanical Analyzer (DMA)

DMA is an important technique used to measure the mechanical and viscoelastic properties of materials such as thermoplastics, thermosets, elastomers, ceramics and metals.

In DMA, the sample is subjected to a periodic stress in one of several different modes of deformation (bending, tension, shear and compression).

Modulus as a function of time or temperature is measured and provides information on phase transitions.



Hot Stage Microscopy Systems

Hot-stage microscopy is a powerful method which is widely used to visually examine all kinds of thermal transitions when the sample is heated or cooled.

Observe your sample while it is heated or cooled – and understand better the physics of a transition

The heart of all hot-stage systems is the furnace with a heating element beneath and above the sample, which guarantees outstanding temperature uniformity in the sample.



ANALYTICAL INSTRUMENTS

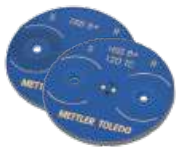
OBSERVE COMPOSITIONAL & MECHANICAL PROPERTIES



The **sample robot** can process up to 34 samples even if every sample requires a different method and a different crucible.



The **silver furnace** is very symmetrical to improve the resolution by incorporating direct heating through heating block beneath the DSC sensor



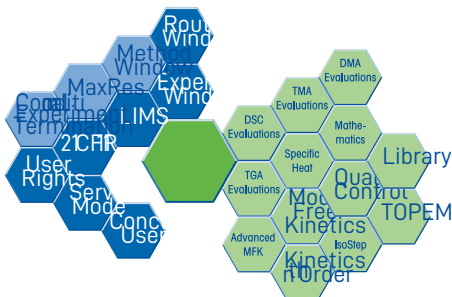
The **FRS +5 sensor** has **56 thermocouples** and provides high sensitivity and unprecedented temperature resolution.



Ergonomic design; If you insert samples manually, you can rest your hand on an ergonomically shaped support surface.



The **One Click™ function** allows you to easily and efficiently start a predefined method.



STARe SOFTWARE is the most complete and comprehensive thermal analysis software on the market and provides unrivalled flexibility and unlimited evaluation possibilities. Data is securely protected against loss or modification.

Built-in mass flow controller (MFC) gas supply units allow accurate and repeatable investigation of material properties under a variety of atmospheres

ANALYTICAL INSTRUMENTS

LABX SOFTWARE

LabX™ Balance software

LabX™ Balance software offers central control of instruments, tasks and users, SOP guidance on the balance terminal, and elimination of manual transcription.



LabX™ Titration software

LabX™ Titration software connects to your laboratory instruments and speeds titration analyses via electronic data flow, while ensuring flexibility and compliance across all users.



LabX™ Density and Refractometry software

LabX™ Density and Refractometry software provides electronic data management, supports compliance and connects your instruments for simultaneous analyses.



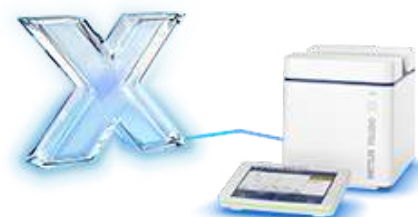
LabX™ pH software

LabX™ pH software connected to the SevenExcellence™ pH Meter provides full data integrity. In combination with the InMotion™ Autosampler, it enables automated measurements of more than 300 samples.



LabX™ UV Vis Spectrophotometer software

LabX™ UV Vis Spectrophotometer software stores all your data automatically in a secure database to support easy result handling. Stay compliant with automated performance verification.



LabX™ Melting Point software

LabX™ Melting Point software provides secure and flexible data handling, and supports compliance with 21 CFR Part 11 and seamless integration into LIMS, ELN or ERP systems.



ANALYTICAL INSTRUMENTS

MULTIPLE INSTRUMENTS, ONE SOFTWARE

Streamline processes and reduce system maintenance with LabX™ laboratory software

- Manage instruments, resources, SOPs, tasks and users centrally, then distribute to connected instruments.
- Seamlessly integrate your lab systems into ELNs, LIMS or ERPs via the single LabX interface to cover complete workflows.
- Reduce effort for validation, maintenance and support of your computerized lab systems.
- Ensure smooth operation of your lab systems with a single interface to learn.

Compliance Made Easy:

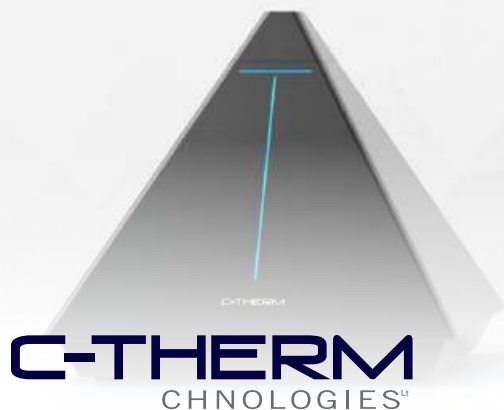
- Fulfill regulation and data integrity requirements efficiently with LabX™ laboratory software:
- Ensure traceability and data integrity according to the ALCOA+ framework throughout the workflow.
- Keep all technical features, including the audit trail and electronic signatures, at hand to support compliance with regulations such as 21 CFR Part 11.
- Access all your data quickly and easily during an audit.



Increased Workflow Efficiency

Speed up your daily work with LabX™ laboratory software:

- Automate your multi-parameter workflows to increase throughput and reduce cost per sample.
- Prevent transcription errors thanks to electronic data management functionality that automatically collects complete data from your analyses.
- Program your standard operating procedures (SOPs) into LabX workflows, then let the software guide operators step by step at the instrument terminal to prevent errors.
- Ensure only adjusted and calibrated resources are in use with LabX asset management



C-Therm Technologies provides sensor solutions for R&D, manufacturing and quality control environments, offering the latest in rapid, non-destructive thermal analysis instrumentation

THERMAL CONDUCTIVITY

TRIDENT - 1 Instruments and 3 Methods

Trident unleashes the power of three different transient methods with the ultimate toolbox for thermal conductivity measurement. MTPS, TPS and TLS all in one modular package

It has the fast, easy and highly accurate. A single-sided, "plug & play" sensor suitable for testing solids, liquids, powders and pastes. Offers maximum sample versatility. Conforms to ASTM D7984.



TCi™ - Thermal Conductivity Analyzer

C-Therm's touch tester is the only product for quantifying touch performance that fully complies with ASTM D794. The Tx Touch Tester is employed by the top global sports apparel brands and textile testing labs including: adidas, Columbia Sportswear, Marks (Canadian Tire), Intertek, the Taiwan Textile Research Institute, and Bureau Veritas.



High-Precision Dilatometers

With unparalleled ease-of-use, high adaptability, and modular design, C-Therm dilatometers offer researchers a robust cost-effective solution to their characterization needs.



TCKit – Thermal Conductivity Kit

An economical "do-it-yourself" solution, the TCKit is targeted primarily towards academic researchers. Employing the Transient Plane Source (TPS) method, the TCKit includes the tools & software needed to build and customize a thermal conductivity analyzer at a fraction of the price.





INDUSTRIAL LABORATORY SOLUTIONS

METTLER TOLEDO

PIPETTES & LIQUID HANDLING SYSTEMS

METTLER TOLEDO is the technology leader in the unmatched, very precise and accurate liquid handling laboratory instruments and solutions which guarantee better results at higher sensitivities.

PIPETTES & LIQUID HANDLING SYSTEMS

PIPETTES

Manual Single Channel Pipette Pipet-Lite XLS

The Pipet-Lite XLS+ single channel manual pipette is among the most ergonomic manual pipettes available.

- Low spring forces
- A better tip ejector
- Autoclavable liquid end



Manual Multichannel Pipette

Multichannel Pipettes from Rainin. Pipet-Lite XLS+ new liquid ends are made of durable, lightweight materials and new mechanical designs.

- Lightest touch
- Superior performance
- Superior channel-to-channel consistency



Multichannel Adjustable Spacer Pipet-Lite XLS

For speed, ease and accuracy, nothing beats the Rainin Pipet-Lite XLS Adjustable Spacer pipette for streamlining complex workflows.

- Fast, changeable tip spacing
- Superior performance
- Secure volume lock



Single Channel Electronic Pipette E4 XLS

With the Rainin E4 XLS+ Single Channel Electronic Pipette, METTLER TOLEDO has set the standard for simplicity and performance in electronic pipetting.

- Highly Configurable
- PureSpeed on Board
- GLP/GMP Secure



Electronic Multichannel Pipette E4 XLS

Multi-dispense, mixing and other pipetting modes on the E4 XLS+ multichannel pipette are easy to use and minimize setup time for high throughput work.

- Fast format change
- Absolutely consistent sample pickup
- Simplify Repetitive Pipetting



PIPETTES & LIQUID HANDLING SYSTEMS

HIGH-THROUGHPUT SYSTEMS & ACCESSORIES

Electronic Adjustable Spacer Multichannel Pipette E4 XLS

Reduce up to %98 of your pipetting steps

- Fast format change
- Absolutely consistent sample pickup
- Simplify Repetitive Pipetting
- GLP/GMP Secure



Pipette Tips

Made from %100 virgin polypropylene in a fully automated, Class 100,000 clean room facility, Rainin tips provide excellent clarity and flexibility for accurate touch-off.

- BioClean Ultra Tips
- Special Application Tips
- Sample Preparation Tips



LiteTouch System and Universal Fit

Rainin tips optimize work with different kinds of pipettes:

- LTS: Rainin LiteTouch System™ pipettes
- UNV: Universal-fit pipettes, by Rainin and other manufacturers.

Unique to Rainin, the LiteTouch System connects a specially shaped nozzle to a perfectly matched LTS tip to deliver the industry's lowest tip mounting and ejection forces. The result: fewer repetitive stress injuries and more comfort while pipetting.



Before LTS

After LTS

Pipette Management

Control your pipettes with SmartStand and EasyDirect Software.

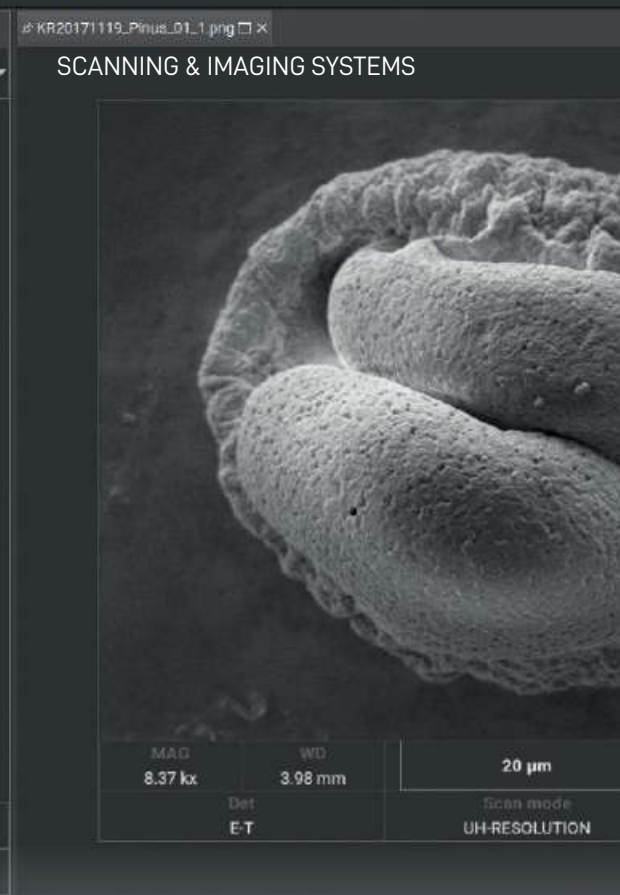
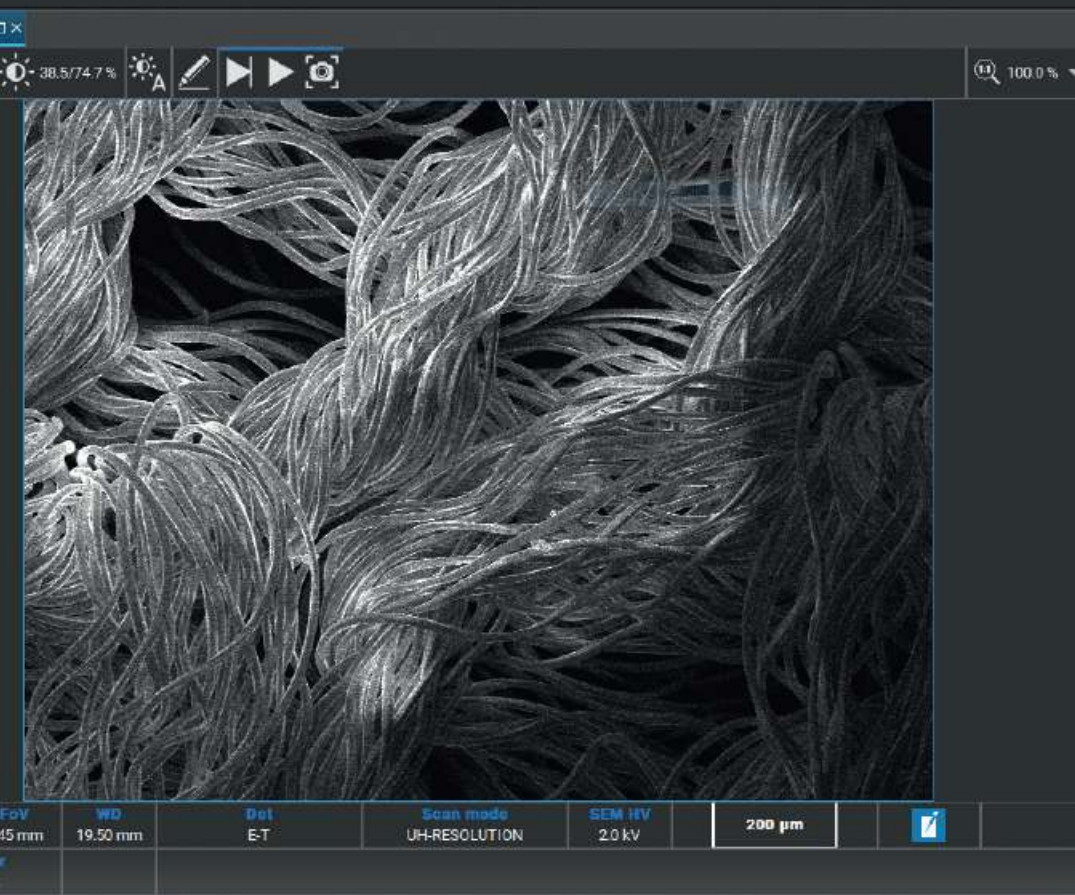


High-throughput Pipetting

From completely manual to semi-automated, Rainin -384/96well pipettors and consumables deliver outstanding performance.

- Automated Pipetting System - BenchSmart™96
- Liquidator 96™ Manual Pipetting System





SEMS, FIB-SEMS AND MICRO-CT'S

Scanning electron microscopy is a well-known non-destructive technique that uses an electron beam probe to analyse samples surface down to nano-scale. The scanning electron microscopes produce high magnification images with high resolution, a feature of which makes them suitable tools for a wide range of applications in numerous fields of science and industry.

SEMS, FIB-SEMS AND MICRO-CT'S

SCANNING ELECTRON MICROSCOPY (SEM)

Achieving a sub-nanometer resolution, the Tescan **SEM systems** will reveal the finest details about the structure of your material. TESCANA's unique Wide Field Optics™ allow you to quickly locate areas of interest at magnifications as low as 2x before zooming in to understand their makeup.

For the micron and the sub-micron level there are SEM VEGA and SEM MIRA systems and for the nanoscale and sub-nanoscale there are SEM CLARA and SEM MAGNA systems.

Key features

- UHR imaging of non-conductive beam sensitive samples at low-kV
- A routine investigation of heavy-metal stained ultra-thin sections with excellent contrast using the In-beam BSE detector at extremely low kV
- Easy-to-use STEM detector as a cost-effective alternative to routinely used TEM
- Compatibility with major cryo-system suppliers on the market
- Easy-to-use, fully customizable, application-oriented and modular user interface



FOCUSED ION BEAM SCANNING ELECTRON MICROSCOPY (FIB-SEM)

Focused ion beam scanning electron microscopy (FIB-SEM) combines two beams (electron and ion) in one instrument. The FIB column is used for cross sectioning or sample modification, while the SEM column provides high resolution imaging.

The geometry of FIB-SEM systems is such that the electron and ion beam focal points coincide, making simultaneous SEM imaging during FIB milling possible – a significant leap in terms of performance and throughput for FIB operations that demand ultimate levels of precision.

TESCAN offers two different ion species for FIB sources: gallium ions and xenon ion plasma. Ga ion source FIB is preferred for all applications that need ultimate precision for fabrication and nano-patterning. Xenon plasma FIBs deliver much higher ion beam currents compared to Ga-FIB to remove large volumes of material in times frames that can be up to 50× shorter than Ga-FIB.

There is a full range of FIB-SEM Systems such as TESCANA SOLARIS, TESCANA SOLARIS X, TESCANA AMBER, TESCANA AMBER X.



SEMS, FIB-SEMS AND MICRO-CT'S

MICRO-CT SYSTEMS

Provides high throughput and flexibility; offering novel **dynamic CT workflows** enabling a wide range of 4D applications. Studying the change or evolution of a sample non-destructively. Our micro-CT solutions are specifically designed to facilitate high-throughput and dynamic CT workflows, expanding your in-situ research capabilities.

Micro-CT provides direct 3D information on the porosity, mineral distribution and microstructure of geological samples with micrometer resolution. Due to the unique design of the TESCAN micro-CT systems, it becomes possible to quantify fast dynamic in situ processes in the lab. It is specifically designed to facilitate high-throughput, multi-scale and dynamic CT workflows.

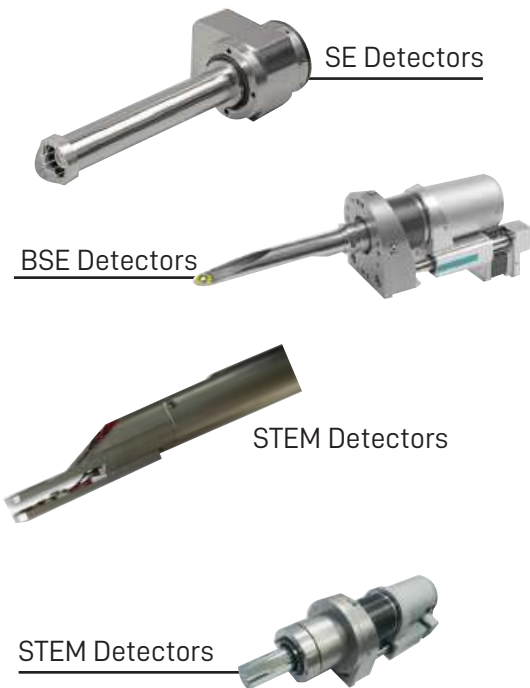


DETECTORS

TESCAN offers a wide range of **proprietary and third-party detectors** that can be integrated into our SEM and FIB-SEM systems.

Detectors offered by TESCAN:

- SE Detectors
- BSE Detectors
- Beam Deceleration Technology
- Electron Backscatter Diffraction
- STEM Detectors
- CL Detectors
- Low Vacuum Secondary Electron TESCAN Detectors
- Electron Beam Induced Current Detectors
- X-ray Spectrometry Detectors
- Secondary Ion TESCAN Detectors
- TOF-SIMS Detectors
- EDS Detector





ATOMIC SPECTROSCOPY

HORIBA
Scientific

ATOMIC SPECTROSCOPY AND MEASUREMENTS

HORIBA provides an extensive array of instruments and systems for applications to a broad range of scientific R&D and QC measurements. Proven quality and trustworthy performance have established widespread confidence in Horiba.

ATOMIC SPECTROSCOPY AND MEASUREMENTS

ATOMIC SPECTROSCOPY

Quantum Microscopes - AFM Technology

The first scanning NV (nitrogen-vacancy) microscope for the analysis of magnetic materials at the atomic scale. The Qnami ProteusQ system comes with state-of-the-art electronics, software and AFM optical platform.

Its flexible design allows for future adjustments and scaling, expansion and capability upgrades.



Raman Imaging And Spectrometers

A complete Raman spectroscopy solutions for analytical measurements, research Raman, UV Raman, QC/QA and industrial Raman applications. They are well-known for Stability/Reliability obtained from a robust design approach, high-performance and speed enabled by our many Ultrafast Imaging patented functionalities, and ease of use thanks to the renowned LabSpec software suite.



AFM Optical Platform

The myriad of AFM (Atomic Force Microscope) techniques that allow study of topographical, electrical and mechanical properties can be performed with any laser source available in Raman spectrometer, or with other external illumination (e.g., solar simulator or other tunable or continuum source).

The AFM-Raman platform is a two-way road; where complimentary techniques provide novel and unique imaging capabilities to each other.



Fluorescence Spectroscopy

These steady-state fluorescence spectroscopy looks at the long-term average Fluorescence of a sample when irradiated with UV, Visible or near-IR Light. The research-grade fluorimeters are compact, benchtop or modular, and customizable for any sort of Fluorometry, be it Fluorescence detection or Phosphorescence studies your research requires.

Besides, Fluorescence Spectroscopy software was tailored precisely for the types of experiments you perform by controlling all aspects of your system.



Energy Dispersive X-Ray Fluorescence (ED-XRF)

This range guarantees simple analysis operation with no preparation required and non-destructive analysis. The measurement points can be accessed quickly through high-precision optical observation, even in the microscopic range.

The clear and High-speed Image mapping ensures shortened analysis time facilitates efficient measurement work. and X-ray images with very little noise allow for even clearer observation.



ATOMIC SPECTROSCOPY AND MEASUREMENTS

PARTICLE MEASUREMENTS

Surface Plasmon Resonance imaging (SPRi)

Advanced antibodies exploration Thanks to Label-free Surface, Plasmon Resonance Imaging Technology, as well as Streamlined SPRi-MS coupling to detect and identify a kinase in Cell lysate using the DARPin as binders.



Glow Discharge Optical Emission Spectrometry (GDOES)

Providing ultra-fast elemental depth profile analysis of layered materials, simultaneously offering quantitative measurement of all elements and thickness with nanometer depth resolution



Spectroscopic Ellipsometry

The most suitable technique for thin film characterization. It allows a range of thin film properties to be characterized, like layer thickness, optical properties (n,k), optical band gap, interface and roughness thickness, film composition, uniformity by depth and area, and more. It can also be used to study solid-liquid or liquid-liquid interfaces.



ICP-OES Spectrometers

High resolution, high sensitivity and high stability ICP-OES spectrometer with the highest performance on the market and is specially designed to handle the most challenging applications. Its high quality optical design integrates a high density holographic grating and one meter focal length. Providing lowest detection limits in ICP-OES spectrometry thanks to the radial viewing and total plasma view



Sulfur-in-Oil Analyzer

From EDXRF to MEDXRF to combustion UV-Fluorescence, to combustion chemiluminescence to microcoulometry, our range of Sulfur-in-oil analyzers meet all of your needs.



Particle Characterization

Designed for Characterization of Particle Size by Laser diffraction, Particle Shape by Image analysis, Zeta Potential by Electrophoretic Light Scattering, Surface Area by Flowing gas adsorption and Particle Concentration



MASS SPECTROSCOPY



SPECTROMETRY & CAPILLARY ELECTROPHORESIS

Sciex is a pioneer in mass spectrometry paired with capillary electrophoresis and liquid chromatography in the fields of clinical diagnostics & clinical research, food & beverage testing, environmental testing, forensics testing, life science research, pharma and biopharma.

SPECTROMETRY & CAPILLARY ELECTROPHORESIS

TRIPLETOF® MASS SPECTROMETER SYSTEMS

TripleTOF +6600 System

Built and optimized for large-scale quantitative mass spectrometry, the TripleTOF +6600 System offers sensitive and robust quantitation using dedicated low flow source technology. Redesigned TOF entrance optics, along with software improvements within the forthcoming Analyst® TF Software 1.8, deliver optimized ion beam control, detector tuning, and scheduled ionization to decrease the risk of downtime over long term usage. Combined with the characteristically fast scanning capability of previous TripleTOF platforms, SWATH® Acquisition, and the ultimate approach for data-independent digital archiving of samples, the instrument you see before you could unlock a world of quantitative data you have never experienced before.

**TripleTOF 6600 System**

Take on new analytical challenges and extend your research capability with the TripleTOF® 6600 quadrupole time-of-flight (QTOF) mass analyzer.

Built with versatility in mind, TripleTOF technology unleashes sensitivity, speed and productivity in a single multifaceted platform to help you dig deeper into complex samples.

- Fast acquisition speed with no compromise in data resolution to identify more compounds in your sample
 - More complete data-with high-resolution MS/MS data on every detectable analyte
 - Advanced workflow capabilities – with high-performance sensitivity
- Enhanced quantitation- with extended linear dynamic range

**TripleTOF +5600 System**

The TripleTOF +5600 System combines the best-in-class front end of SCIEX Triple Quad™ technology with the Accelerator TOF™ Analyzer, to deliver nominal mass and accurate mass benefits in a single platform. This proven workhorse uniquely integrates comprehensive, qualitative exploration, rapid profiling, and high-resolution quantification workflows, providing high performance and versatility for pharmaceutical development, omics research and any challenging unknown compound analysis



SPECTROMETRY & CAPILLARY ELECTROPHORESIS

X500 QTOF MASS SPECTROMETER SYSTEMS

ZenoTOF 7600 system

A revolution in accurate mass has arrived. This high-resolution accurate mass system combines the power of Zeno trap pulsing with EAD fragmentation technology (electron activated dissociation) to unlock sensitivity gains that reveal new, rare, or even previously undetected information on an everyday basis. Detect up to 20x more ions in every experiment and access a spectrum of tunable fragmentation techniques to uncover new perspectives for every molecule in every experiment that will allow your research to Be Extraordinary.



X500B QTOF System

Built specifically for biologics characterization, the X500B QTOF System will help you boost your analytical capacity, simplify workflows and accelerate throughput in a matter of days. This high resolution Quadrupole Time-of-Flight (QTOF) system combines robust and reliable instrumentation with powerful and intuitive software to get you to characterization answers faster and easier, in a true benchtop platform. And with tools to enable a complete Multiple Attribute Methodology (MAM) Workflow, to allow you to define, track and quantify product quality attributes as well as specified contaminants, or find new unspecified impurities in a single software solution.



X500R QTOF System

Screening for unknown compounds in complex samples is difficult, but not finding them can have massive consequences on your results and your lab's reputation. High resolution LC-MS/MS can do the job, but is traditionally hard to implement for daily routine testing:

- Data are complex and data processing is virtually impossible
- Systems are not robust enough to handle the full sample batches needed
- Quality of results are compromised by challenging matrices



SPECTROMETRY & CAPILLARY ELECTROPHORESIS

TRIPLE QUAD™ LC-MS/MS SYSTEMS

Triple Quad 7500 LC-MS/MS System – QTRAP® Ready

The SCIEX 7500 System delivers the highest level of sensitivity than previous SCIEX systems. The system is integrated with innovative technology, which enables a low-level of quantification of analytes in crude and complex matrices.

**Triple Quad +6500 System**

The Triple Quad +6500 LC-MS/MS system features multi-component IonDrive™ technology that pushes the boundaries of quantitation. The sensitivity, speed, and performance delivered through these technology enhancements enable you to see it all, from low mass to high mass compounds.

**Triple Quad +5500 LC-MS/MS System – QTRAP® Ready**

The SCIEX +5500 System is equipped to conquer your laboratory's complex workflows. With this LC-MS/MS system, you have the sensitivity and performance to meet analytical and regulatory demands for low level trace detection with ease.

**Triple Quad 4500 System**

The Triple Quad 4500 System takes the API 4000™ platform and intelligently re-engineers it to set a new benchmark for reliable quantitation. Designed for food, environmental, forensics and clinical research.

**Triple Quad 3500 System**

This system offers productivity, reliability, and robustness in a modernized entry-level mass spec for today's analytical laboratories. The Triple Quad 3500 system offers the speed and precision you want from a modern mass spec system, with the legendary performance and dependability you trust from SCIEX technology.



SPECTROMETRY & CAPILLARY ELECTROPHORESIS

TOF/TOF SYSTEMS

TripleTOF® +5600 System

The TripleTOF +5600 System combines the best-in-class front end of SCIEX Triple Quad™ technology with the Accelerator TOF™ Analyzer, to deliver nominal mass and accurate mass benefits in a single platform.

This proven workhorse uniquely integrates comprehensive, qualitative exploration, rapid profiling, and high-resolution quantification workflows, providing high performance and versatility for pharmaceutical development, omics research and any challenging unknown compound analysis.



CAPILLARY ELECTROPHORESIS

PA 800 Plus Pharmaceutical Analysis System

With the PA 800 Plus Pharmaceutical Analysis System, you can confidently safeguard the success of your biologics. Run multiple characterizations from a single system that biopharma labs depend on, and produce qualitative and quantitative analyses, with speed and confidence.



CESI 8000 Plus ESI-MS-High-Performance System

Experience the revolutionary ESI-MS approach to discovering previously undetectable characteristics from the minutest amount of precious samples, faster than ever before. Whether using as a standalone capillary electrophoresis instrument or in conjunction with the power of mass spectrometry, the CESI 8000 Plus allows you to concentrate on your science rather than technology. You've worked hard to get your sample this far.



P/ACE™ MDQ Plus

The P/ACE Series is an automated, programmable capillary electrophoresis system designed to perform fast separations from complex samples. Separations occur in a capillary which is housed in an interchangeable cartridge with circulating liquid coolant for efficient temperature control. This finely regulated temperature control allows the use of high ionic strength buffers and large-bore capillaries necessary for analyzing difficult samples.



SPECTROMETRY & CAPILLARY ELECTROPHORESIS

ION MOBILITY SPECTROMETRY

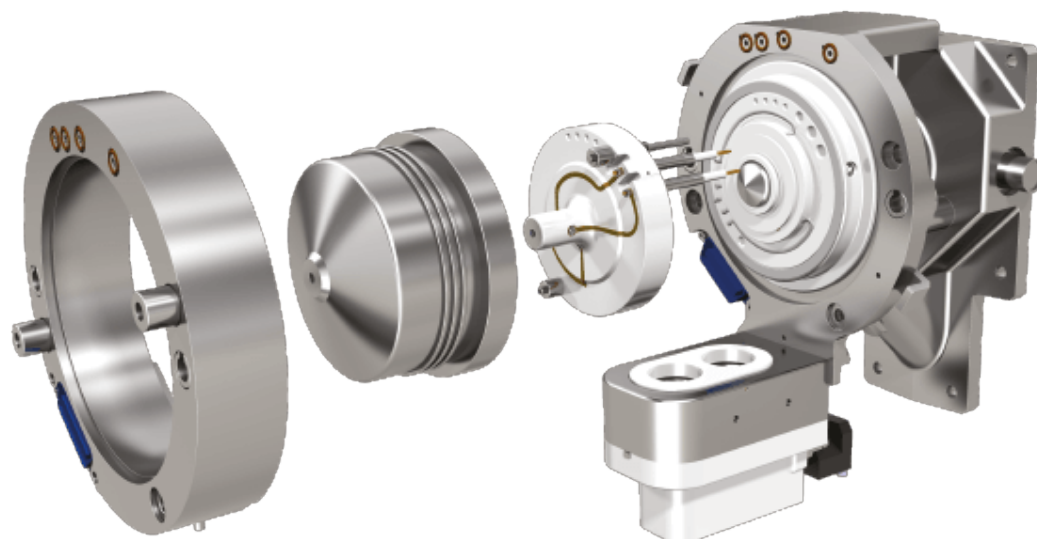
LC-MS/MS assay development can be challenging, particularly for analytes that coelute with contaminants or become buried within background noise. The SCIEX SelexION Differential Mobility Separation device (DMS) provides an extra level of selectivity so you can resolve difficult analytes and achieve higher confidence in detection and quantitation. Designed to install between the ionization source and the vacuum interface of your mass spectrometer, SelexION provides a further degree of separation beyond retention time and mass. SelexION uses gas phase differential ion mobility to enable the separation of coeluting compounds, isobaric and isomeric compounds, and compounds buried within high background noise. Instead of spending more time on LC separation strategies and sample preparation, SelexION simplifies your workflow with an innovative add-on separation solution.

- Provides a robust and reproducible additional level of selectivity and separation
- Installs and de-installs within 2 minutes without breaking vacuum
- Can be operated in a transparent mode for those assays where ion mobility is not required
- Can be used with optional chemical modifiers to further increase separation power
- Compatible with select SCIEX Triple Quad™, QTRAP®, and TripleTOF® Systems
- Compatible with a variety of ion sources including the NanoSpray® Source and the Turbo V™ Source
- Compatible with fast UHPLC timescales

SelexION can enhance analyte detection, improve quantitation limits, simplify sample preparation, and shorten assay development time. With applications in food and environmental analysis, forensics, lipidomics, peptide and protein quantitation, and small molecule bioanalysis and metabolism, SelexION DMS can enrich your assays, streamline your workflows, and improve your overall productivity.

Easy to install: Compact and simple design allows the cell to be installed without the use of any tools and in less than 2 minutes

Robust and Stable: Updated curtain plate to accommodate the differential ion mobility cell. Maintains the same level of robustness and stability associated with the original design



SPECTROMETRY & CAPILLARY ELECTROPHORESIS

FRAGMENT-CENTRIC REVOLUTION



Low energy EAD fragmentation enables characterization of intact biomolecules via top down approaches allowing researchers to rapidly identify and confirm key structural attributes.



Mid-Energy EAD brings fresh insight and completes the picture for biomolecule characterization. EAD, fragmentation of large multiply-charged produces those differential C & Z ions to garner those critical insights.



High-energy EAD fragmentation can produce highly specific MS/MS information on small molecules such as endogenous metabolites or the products of drug metabolism. This enables confident, unambiguous identification and highly specific MS/MS-based quantification.



Driven by the power of the Zeno trap coupled with EAD fragmentation technology, this fragment-centric revolution unlocks sensitivity gains allowing you to uncover new information for certainty in your results to make better-informed decisions, faster. Detect up to 20x more ions in every experiment and access a spectrum of tuneable fragmentation techniques to unlock new perspectives for every molecule, in every experiment.

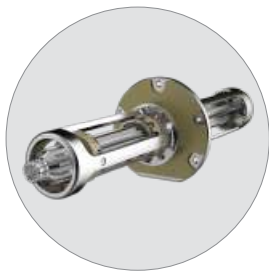
Zeno trap and EAD. A powerful combination of unparalleled MS/MS sensitivity and a step-change in fragmentation technology.

Together they provide the ability to acquire key MS/MS features needed to:

- Characterize large molecules including post-translational modifications
- Elucidate positional isomers on small molecules and lipids
- Identify and quantify proteins and peptides at unparalleled speed

SPECTROMETRY & CAPILLARY ELECTROPHORESIS

HIGHEST LEVEL OF SENSITIVITY



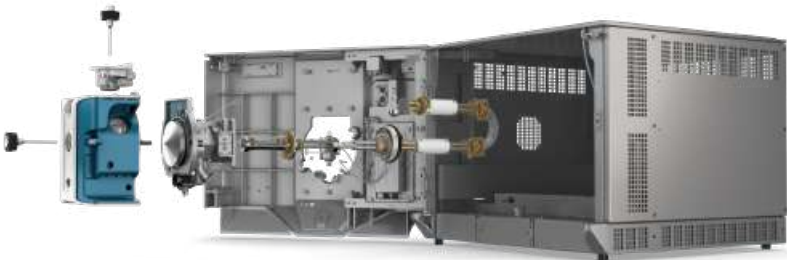
Expand your laboratory capabilities to test dirty and complex samples. **The new D Jet™ Ion Guide** will allow you to characterize analytes that were once masked by matrices.



Quantify more trace analytes at lower levels. Simplify sample prep, and inject less sample using the **OptiFlow® Pro Ion Source**. And also boost the transition of crucial ions into the system with the integrated E Lens™ Technology.



Analyze and represent your data in a new and intuitive format. Control, acquire, analyze, interrogate and report, **all on one software platform.**





TESTING INSTRUMENTS

Thermo
S C I E N T I F I C

MATERIAL IDENTIFICATION

Manufacturers must ensure the quality of materials - from incoming raw material through finished product. The Thermo Scientific™ Portable Material ID & Surface Analyzers gurantees reliable material identity verification through sealed packaging in a short time.

MATERIAL IDENTIFICATION

PORTABLE ANALYTICAL INSTRUMENTS

TruScan™ RM Handheld Raman Analyzer

The TruScan RM analyzer includes state-of-the-art optics paired with a patented multivariate residual analysis that offers an effective chemometric solution for material identification, with two spectral pre-processing options



TruScan™ RM TruTools Chemometrics Package

This tool provides users with the flexibility to build customized qualitative and quantitative methods for complex material analysis problems. It decreases laboratory sample testing and enables more at-line decisions



TruScan™ GP Analyzer

The Thermo Scientific™ TruScan™ GP Analyzer provides quick, easy to use raw material identification and finished product inspection to screen out counterfeit substances and reduce supply chain risk



IonicX Portable XRF Analyzer

IonicX™ Portable XRF Analyzer Offers a fast and accurate ionic salt raw material identity verification and high sample throughput to pharmaceutical and biopharmaceutical manufacturers. It reduces the testing time and expense by adapting the non-destructive, non-contact portable XRF analyzer for ionic salts



microPHAZIR™ RX Analyzer

With the Thermo Scientific™ microPHAZIR™ RX Analyzer, pharmaceutical manufacturers can obtain reliable material identity verification on-site within seconds. The microPHAZIR RX Analyzer provides a portable tool to meet regulatory requirements, improve product quality, cut manufacturing costs and reduce supply chain risk.



microPHAZIR™ PC Analyzer

The Thermo Scientific™ microPHAZIR™ PC Analyzer for Plastic/Polymer Identification is an NIR spectroscopy tool that rapidly screens and identifies a variety of polymers, plastics and fiber types on-site to streamline inspection without compromising accuracy and quality.



MATERIAL IDENTIFICATION

PORTABLE ANALYTICAL INSTRUMENTS

microPHAZIR™ GP Analyzer

Near-Infrared (NIR) instrument designed for rapid on-site material identification and analysis. The microPHAZIR™ GP analyzer provides manufacturers with a portable tool to meet high product quality demands through increased testing



microPHAZIR™ AS Analyzer

The microPHAZIR AS analyzer is a powerful tool that enables in-field, rapid screening and identification of all six types of regulated asbestos fibers—chrysotile, crocidolite, anthophyllite, tremolite, actinolite and amosite—within seconds



Gemini™ Analyzer

Identify a broad range of unknown chemicals and explosives in the field quickly, safely, and confidently using FTIR and Raman spectroscopy in a single instrument with the Thermo Scientific™ Gemini™ Analyzer



FirstDefender™ RMX

FirstDefender RMX can be used as a handheld instrument or integrated onto a tactical robot, providing more flexibility and increased safety in incident response situations that call for rapid, accurate chemical identification



TruDefender™ FTX/FTXi Handheld FTIR

TruDefender analyzers have a self-contained anvil sampling head for easy sampling of solid and liquid chemicals in the field



TruNarc™ Handheld Narcotics Analyzer

Thermo Scientific™ TruNarc™ Handheld Narcotics Analyzer enables officers, customs, border control, and other personnel to scan more than 450 suspected illicit substances in a single, definitive test



MATERIAL IDENTIFICATION

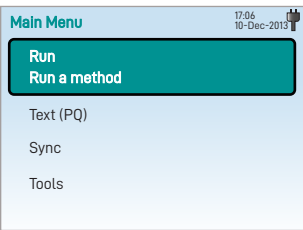
NEXT GENERATION OF PORTABLE MATERIAL ID SYSTEMS



Once a measurement is complete, the analyzer provides a clear **PASS/FAIL** result within seconds.



Integrated **Barcode and Fingerprint Scanner**



Enhanced user interface and improved functionality, such as consolidated batch reporting and intuitive workflow, user friendly interface.



Weighing **less than 2 pounds** (0.9Kg),the analyzer can be used on the loading dock ,in the warehouse, or wherever rapid materialverification is required.

- Key Benefits :
- 1. Smart & easy to use
 - 2. Enhanced 21CFR Part 11 compliance
 - 3. Broad Material Coverage
 - 4. Customized Methods
 - 5. Different network arrangement
 - 6. Build in Method validation-Selectivity



- Applications Include:**
- 1. Incoming raw material identity verification
 - 2. Inspection of intermediate and final
 - 3. In process controls
 - 4. Process troubleshooting
 - 5. Counterfeit identification

The analyzer performs identification through sealed packaging to minimize the risk of contamination and exposure.



Method Building Process

Overall performance enhancements provide faster PASS/FAIL results, and enable quicker method development and data synchronization.

TESTING INSTRUMENTS



PHARMACEUTICAL TESTING

Internationally leading manufacturer for the high-value test devices and systems. Offering a complete product range from manual, physical testing instruments to fully automated, analytical test systems to analyze the active chemical composition of a dosage form as well as its release rate.

PHARMACEUTICAL TESTING

DISSOLUTION

Tablet Dissolution Testing Instruments

Reflects the availability of active substance and allows the prediction of the time for complete release of the material from the dosage form.



Offline Automated Dissolution Systems

Automated sampling for a dissolution test instrument at pre-programmed times that includes a dissolution bath, a pump and a fraction collector which collects the sampled dissolution media



Online Automated Dissolution Systems

Unlike the off-line systems where samples are removed from the dissolution vessels and stored either for transfer to a measurement system or for further preparation (e.g. dilution), the samples here are circulated in a closed loop.



In-Situ Dissolution Testing

Fast sampling sequences, a full spectra scan is available for all connected vessels in less than 30 seconds, immediate result display, minimum change over time from test to test are some of the advantages offered by the In-Situ Dissolution Testing



Media Preparation

Media preparation and degassing are vital parts of a tablet dissolution test as deaerated media are critical to the reproducibility of dissolution results.



PHARMACEUTICAL TESTING

GALENIC INSTRUMENTS

Tablet Disintegration Testing

Evaluating the disintegration characteristics of formulations and the quality control of different dosage forms.



Suppository Testing

Measuring the disintegration time by placing the samples into rotating baskets inside a heated water bath and measuring the softening time by which the suppository melts at a certain temperature.



Tablet Hardness Testing

Testing the breaking point and structural integrity of a tablet prior to storage, transportation, and handling before usage.



Ampoule Testing

ampoule breakpoint tester to control the quality during production of empty ampoules.



Tablet Friability Testing

Testing the durability of tablets during packing processes and transit by repeatedly dropping a sample of tablets over a fixed time, using a rotating drum with a baffle



Leak Testing

Checking the integrity of tablet strips, blister packs and small bottles by checking the air-tightness of sweet packets, ready-to-eat pre-packed foods, confectionery packaging, packs of noodles, sauces to name but a few



PHARMACEUTICAL TESTING

SOLID DOSAGE FORMS TESTERS



Vessel Centering System

Rigid and precise three-point individual centering system for each dissolution vessel

Each **USP Borosilicate glass vessel** has a batch code on top of the flange for easy visibility and positioned placement inside the water bath cover.



User Interface

The large color, touch screen allows control of the various me-chanical features of the instrument such as the tool stirring speed, lift drive and heater

Space Requirements

The space saving designs and the display module can be mounted either of two positions on the drive head



Heating System

The heating system is contained in a separate stainless steel housing.

The **Vacuum-Moulded** Water Bath contains a water diffuser for faster heating and to ensure that heated water is evenly distributed throughout the whole bath.



Stirring Tools

Pharma Test MonoShaft™ tools consist of the main shaft plus interchangeable tool heads (adapters).





TESTING INSTRUMENTS



HANDHELD & FULLY AUTOMATIC TORQUE TESTERS

Sure Torque offers the widest range of closure torque testing solutions from the handheld units to the fully automatic torque testers.

Many of the major cap producers, beverage and pharmaceutical companies are using automatic Torque Testers from Sure Torque

HANDHELD & FULLY AUTOMATIC TORQUE TESTERS

CAP TESTERS

ST-LAB

The low cost ST-LAB with several options makes it ideally suited for torque testing in laboratory and pharmaceutical production environments



ST-INLINE

The fully automatic ST-INLINE Bottle Cap Torque Tester samples and tests caps right on the production line



ST-S3

The S3 can also be programmed to perform tests to a set degree of rotation



ST-50

The ST-50 will perform fullrelease torque testing to protocol as well as perform final cap tightening to a setpoint



ST-M

The ST-M can record both the primary and the secondary peak torques during a release (or application) process, so both the initial release torque and the warranty-rings, bridge breaking torque can be measured.



ST-H5 Torque Meter

With the ST-H5 you can accurately measure the torque applied by each head for the desired torque settings



SureVac – Leak Tester

The SureVac™ allows a user to test a sealed package in a water-filled vacuum chamber to a preset vacuum level for a specific amount of time.



HANDHELD & FULLY AUTOMATIC TORQUE TESTERS

THE CAP TEST SPECIALIST



- Customer defined set point.
- Release Torque measurements
- Measuring Peak/Transient Torque, engagement torque and the peak of the bridge break torque.

- Real time, automatic display.
- NIST traceable calibration procedure.
- Strain gauge transducer technology.
- Automatic container clamping and closure gripping.
- Adjustable torque application rate.
- 180 degree chuck rotation.
- Counter balance system for height adjustment.
- Heavy duty components.



Application angle measurement

A release test where after passing the initial release torque the closure will be fully removed, and the original application angle will be measured too



Topload seek test

Topload will be increase automatically until the closure starts to open (force increment and increment dynamics is configurable)

Additional parts

ST-LAB additional cap collet



Additional parts

ST-LAB additional clamps



Kits and Peripherals

- Serial dot printer for direct record printing with battery and charger
- Torque Standard Bottle for quick calibration check on any closure torque tester

AVESTIN

AVESTIN Inc. is a company specialized in Homogenizers, Emulsifying, mixing and dispersing equipment for uniform separation in your laboratory.

HOMOGENIZERS



EmulsiFlex-B15
Capacity: 3 to 15 mL batch
Pressure: 3000 bar
Min. sample volume: 3 mL
Air pressure: 10 - 5 bar



EmulsiFlex-C50
Capacity: 15 to 50 L/h
Pressure: up to 2000 bar
Min. sample volume: 25 mL
Air pressure: 6 - 8 bar



EmulsiFlex-C5
Capacity: 1 to 5 L/h
Pressure: up to 2000 bar
Min. sample volume: 7 mL
Air pressure: 8 bar



EmulsiFlex-C55
Capacity: 55 L/h
Pressure: up to 2000 bar
Min. sample volume: 100 mL
Air pressure: 8 bar

MIXING, DISPERSING, AND EMULSIFYING



EmulsiFlex-C3
Capacity: 3 L/h
Pressure: 2000 bar
Min. sample volume: 10 mL
Air pressure: 4 - 8 bar



EmulsiFlex-C160
Capacity: 160 L/h
Pressure: up to 2000 bar
Min. sample volume: 250 mL
Air pressure: 8 bar



EmulsiFlex-D20
Capacity: 20 L/h
Pressure: up to 2000 bar
Min. sample volume: 50 mL
Air pressure: 8 bar



EmulsiFlex-C55
Capacity: 500 or 1000 L/h
Pressure: up to 2000 bar
Min. sample volume: 5 L
Air pressure: 8 bar

GENERAL LABORATORY

MISCELLANEOUS

Hermle Cintrifuge

Hermle is specialized in the development and manufacturing of laboratory centrifuges. The Germany based company is one of the key players in centrifugation worldwide, and certified ISO 9001 and ISO 13485 for IVD-products. Centrifuges from Hermle have been used in laboratories for more than 60 years in countries all over the world.



GFL Water Baths

The range of Incubation and Inactivation Baths comprises seven models with five different sizes of 7 to 40 l capacity. Water Bath 1005 is especially suitable for warming medical hot packs.

Water Baths 1012 and 1013 are equipped with a circulation system, thus guaranteeing an optimal temperature uniformity.



Thermo Scientific Viscometers

Measuring instruments for the determination of the flow behavior of fluids are called viscometers. Viscosity is a material property which is dependent on different parameters such as mechanical stress and strain, time as well as temperature and other ambient conditions.



IKA Shakers

IKA offers the perfect lab shaker for mixing and shaking tasks. In addition to the tried and tested orbital shakers and horizontal shakers. IKA products boast speeds of up to 3,000 revolutions per minute during continuous operations. A digital display, timer function.



GENERAL LABORATORY

MISCELLANEOUS

IKA Hot Plates

IKA hotplates allow for precise and safe heating and tempering due to a platform made from glass ceramics that ensures the best possible chemical resistance. The universal lab hotplates offer a high level of safety due to a fixed safety circuit, the Hot Top Indicator, and the error code display. An electronic contact thermometer may be connected for highly precise temperature control.



IKA Overhead Mixer

IKA offers the ideal overhead stirrer for your stirring and mixing tasks in the lab-for lower to high viscosities. IKA overhead stirrers effortlessly process stirring quantities of up to 200 liters. IKA lab stirrers and overhead stirrers stand out due to their indispensable features, including an electronic safety circuit, a digital display, two speed ranges, and a controlling option via the lab software Labworldsoft.



IKA Dispersers

The T 25 easy clean control is a high-performance dispersing instrument with electronic speed control from 25,000 - 3,000 rpm for working volumes of 2,000 - 1 ml (H₂O). The new tool S 25 EC-T-C18-G-ST allows temperature measurement and operation time detection through RFID

Device overheating is prevented by continuous temperature monitoring and the setting of temperature limits



Sonicators

Ultrasonic cleaning is one of the most modern processes today that particularly effectively and efficiently removes dirt and other contamination in the shortest time and without damage from many different products to be cleaned.



ROTRONIC MEASUREMENT SOLUTIONS



ENVIRONMENT MONITORING SYSTEMS



TEMPERATURE & HUMIDITY MEASURING & MONITORING

The portfolio includes temperature measurement and monitoring of relative humidity, industrial probes, humidity sensors, measurement probes, data loggers, handheld instruments, transmitters and OEM products that conform to GAMP and FDA requirements.

Apart from humidity and temperature measurement, Rotronic products are designed for monitoring of CO2, differential and process pressure, flow, dew point, water activity and analog signals.

TEMPERATURE & HUMIDITY MEASURING & MONITORING

DATA LOGGERS, TRANSMITTERS & PROBES

Humidity

Rotronic humidity measuring instruments measure temperature too at the same time with Data Loggers for barometric pressure, humidity, temperature and dew point, as well as Humidity and Meto probes and transmitters.



Temperature

Rotronic offers a range of temperature measuring instruments to this end: from temperature probes and transmitters to handhelds and data loggers



CO2

Rotronic CO2 transmitters are equipped with sensitive probes and are ideal for the demanding monitoring of indoor air. They simultaneously measure temperature and air humidity.



Differential Pressure

Rotronic differential pressure measuring instruments are optionally equipped with temperature probes and humidity sensors or can be expanded with digital and analog add-ons to include additional parameters.



Pressure

Rotronic uses the piezo-resistive effect for its pressure measurement equipment, thereby supplying a premium transmitter to the market.



TEMPERATURE & HUMIDITY MEASURING & MONITORING

DATA LOGGERS, TRANSMITTERS & PROBES

Flow

Handheld measuring instruments, which measure temperature, relative humidity and dew point in addition to air velocity and volumetric flow, can be used to test and evaluate the functionality of air conditioning and ventilation systems.



Water Activity

The measurement of water activity or equilibrium relative humidity (ERH) is a key parameter in the quality control of moisture sensitive products or materials.

Manufacturers of foods and pharmaceutical products must, for example, show to the FDA that the water activity of a product has declined to such an extent that bacteria can no longer grow



Dew Point

The Rotronic low dew point probes are ideal for measurement of trace moisture; for example, in compressed air systems or in refrigeration or desiccant dryers.



Software

The RMS software meets all requirements for server-based monitoring. It is linked to a database that stores all measured data and system activities. It is thus possible to access the data on all popular platforms from anywhere in the world as long as you have an Internet connection.



Monitoring Systems - RMS

The adaptive RMS Rotronic Monitoring System documents and visualizes all necessary measured data in one system. It consists of analog and digital hardware elements and a server software.



TEMPERATURE & HUMIDITY MEASURING & MONITORING

ROTRONIC MONITORING SYSTEMS (RMS)



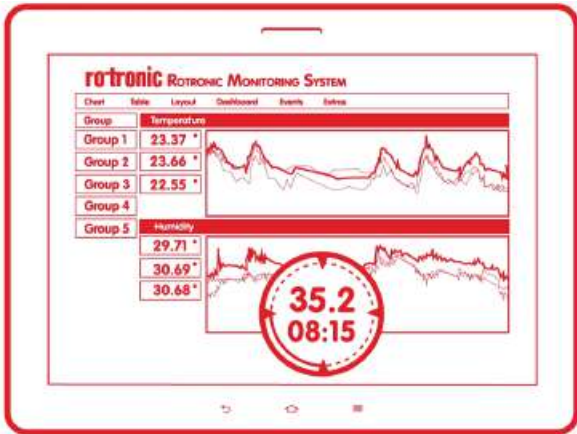
The Rotronic Monitoring System is a **modular system** of hardware elements and web-based software. It provides maximum flexibility in installation and ensures readily available data. The data loggers record measurements from Rotronic and third-party sensors and transmit them to the secure database. It stores information and makes it available to users, regardless of whether they access the database via a PC, Mac, tablet or smartphone.



have a **continuous data logging** and get access to your data via all major platforms



Existing hardware can be **integrated into the Rotronic system** and, vice versa



RMS

Fast & Easy with the **Rotronic SaaS Cloud solution** that remains you compliant to GxP regulations



Run the RMS software with an **SQL database** on your own IT infrastructure and have complete control over your entire system and comply to your own internal regulations, access the interface via most browsers.



Have all incidents **logged and documented** and ready to view and downloaded wherever you go



Our **configurable and continuous Monitoring System** allows you to monitor all kinds of various parameters from temperature to particles including analogue inputs.



The **system analysis** the data, if a threshold is exceeded, RMS immediately triggers the alarm and willotify all relevent people in accordance.



ENVIRONMENT CONTROL SYSTEMS



PARTICLE COUNTING & MONITORING

Particle Measuring Systems specializes in viable and nonviable particle counters that measure and monitor contamination levels in clean and controlled environments. With Particle Measuring Systems, they lead this industry of cleanroom particle counters and contamination monitoring worldwide by actively developing their instruments to perfection

PARTICLE COUNTING & MONITORING

AIR & LIQUID PARTICLE COUNTERS & SENSORS

Airborne particle Counters

Providing real-time measurement of yield-impacting particles with multiple configurations and meets the requirements of ISO 1:2015-14644 and ISO 4-21501.



MiniCapt® Microbial Air Sampler

These instruments help you effectively meet regulations including ISO 14698 and (c)GMP, such as EU GMP Annex 1



Liquid Particle Counting

Our liquid particle counters can determine the size, amount, and nature of particulates in liquid substrates, computer components, medical devices, sensitive equipment, or an assortment of other precision devices



Airnet Particle Sensors

These sensors meet the specifications of ISO 4-21501 to measure the size and number of particles suspended in the air for real-time monitoring of defect-causing particles.



IsoAir Particle Sensors

Real-time particle monitoring gives quick notification of particle anomalies, detecting 0.5 and 5.0 µm for GMP and FDA compliance.



FacilityPro® Environmental Monitoring

Industrial control systems assure data integrity, process automation, simplicity of use, and data integration.



PARTICLE COUNTING & MONITORING

COMPLETE CONTAMINATION CONTROL SOLUTION

The **touchscreen's simple menu** options facilitate logical navigation, and the instrument status is rapidly communicated through the color screen display.

The exterior makes **cleaning quick and easy** and is compatible with a variety of disinfectants.



Particle Counter is designed with the latest technology to meet **global requirements** for data integrity



Real-time download to Facility Net, Pharmaceutical Net Pro, FacilityPro® SMART NG, or FacilityPro SCADA NG software, USB download, automatic clock adjustment with NTP server



240 - 100 V, 60-50 Hz, 2.5 A. Up to **two rechargeable lithium ion batteries** for portable use

Sampling can be **remotely managed** over Ethernet, and all collected data meets 21 CFR Part 11 compliance regulations.



Unlimited **users and recipes** configurable with NFC access cards

Four 20-4 mA **inputs** (<0.5% of Span), four 20-4 mA **outputs** (<1.0% Span), one 5V pulse **output**





Air Techniques International (ATI) has a heritage for supplying instrumentation and testing solutions for the clean air and containment industry.

CLEAN AIR & CONTAINMENT SYSTEMS

Photometers

Digital Photometer is a rugged and an ideal instrument for in-situ filtration system integrity testing.



Aerosol Generators

Testing of filter systems ranging from small glove boxes to large cleanroom plenums and providing the ideal solution for creating a polydispersed, submicron aerosol to certify and qualify in-situ filter systems.



Aerosol Injection & Conditioning

The Positive Injection Pump (PIP) provides the user with a safe and reliable system for directing aerosol from a Thermal or Laskin Nozzle Generator through a tube into the injection point.



Fixed Installation Ports & Specialty Probes

Fixed aerosol injection ports can be easily installed to a ceiling duct in a clean room or an adjoining room that feeds the cleanroom
Fixed aerosol sampling ports allow air-tight connections to the photometer for sampling upstream aerosol challenge from a fixed ceiling point.



Automated Filter Tester

The Automated Filter Tester is designed for test and quality control validation of filter media, cartridges and masks used in medical and industrial hygiene applications.



ENVIRONMENT CONTROL SYSTEMS



CHAMBERS, ROOMS, CONDITIONERS & BATHS

Parameter has long been on the cutting edge of innovation, offering precise temperature & humidity control with greater precision that no other manufacturer has replicated.

CHAMBERS, ROOMS, CONDITIONERS AND BATHS

CHAMBERS

Calibration Chamber

The interior chamber of the unit is constructed of a durable, corrosion resistant 304 stainless steel. Low watt-density heaters are used that also contribute to the unit's longer life.



Reach In Chambers

The chamber airflow can be factory configured from the standard horizontal flow to a vertical flow.



Hanging Samples Chambers

This system is equipped with a series of sample holders to maintain up to 72 textile samples.



Photostability Chamber

Temperature and relative humidity tolerance will adhere to (ICH) Guideline for Stability Testing over the defined operating range.



Walk-in Stability Rooms

Parameter rooms and chambers use a unique method of controlling moisture to attain unmatched levels of humidity and temperature control and uniformity

Parameter's humidity methodology does not use vapor generators or atomizers as a humidity source. Instead, our dew point generating system achieves superior levels of humidity performance



CHAMBERS, ROOMS, CONDITIONERS AND BATHS

ROOMS

Freezer/Cooler Dual Room Stability Chamber

The innovative new system of the Freezer/Cooler Dual Room Stability Chamber controls two stability rooms — one set at °20-C and the other at °5C — with one single energy-efficient conditioner.

Pharmaceutical, Textile and Packaging Rooms Walk-ins

Our rooms are used by many drug companies for active substances stability studies, stress testing, photostability testing and degradation examinations.

For textile, common conditions used in include °22C/%65, and occasional high relative humidity.

Parameter manufactures custom walk-in rooms for the packaging, pulp and paper industries that comply with ICH, ASTM and TAPPI standards

Calibration Rooms Walk-ins

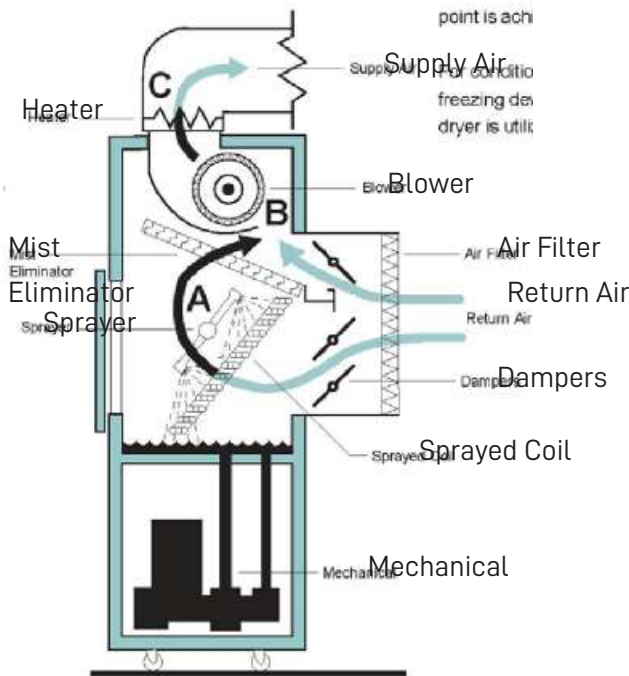
Control constancy, chamber uniformity and sensor accuracy are considered by making the specified tolerance of °1±C and %2± RH truly attainable

How it works

PGC's method of control is the same for both reach-in chambers and conditioning systems.

In short, the environment to be conditioned is controlled at a targeted dew point temperature and then reheated to a specified air temperature.

This methodology follows a proven technique that maintaining a constant dew point and air temperature will produce a very constant relative humidity.



CHAMBERS, ROOMS, CONDITIONERS AND BATHS

CONDITIONERS & BATHS

Horizontal Conditioners

Horizontal Conditioners are available from 100 CFM to 3000 CFM with extremely precise control and uniformity within the room or chamber to allow customers to easily maintain their specified conditions and a unique dew point control system which utilizes much less energy than other stability control systems.

Vertical Conditioners are available from 250 CFM to 7000 CFM with a self-contained format that allows easy installation on-site anywhere in the world.

System control is user friendly Us (Parameter's Smart Pad) that allow for either steady state conditioning or programmable cycling of conditions. These conditioners have unique dew point control system which utilizes much less energy than other stability control systems.



50 Gallon Bath

This large volume bath consists of a bath compartment located above the controls and mechanical area. The inner stainless steel shell (bath liner) is separated into the usable bath area with stainless steel shelf and the lower area that consists of the stainless steel cooling coil and the heater. Uniformity is maintained in the bath area with a force circulator pump. This pump is also used for pumping the fluid to an external apparatus if required.





Bioquell's validated and compliant surface and airborne biodecontamination allows you to focus on managing risks to your patients or workspaces, and reducing operating costs.

ISOLATOR WITH HYDROGEN PEROXIDE VAPOR TECHNOLOGY

Systems for Life Sciences

Bioquell Qube ideal for Sterility Testing, Gene & Cell Therapy, Small Batch Production, Compounding and Cytotoxic Preparation

Bioquell SeQure ideal for Pass-Throughs & Material Airlocks, Lab & Room Decontamination, Spaces Smaller Than 150 Cubic Meters, Viral & Bacterial Vector Work, Biosecurity and Small Research Areas

Bioquell L4- Ideal for Enclosed Systems & Equipment, Isolators, RABS, Freeze Dryers (Lyophilizers), Bio-Safety Cabinets, Cage & Rack Washers, Incubators, Filter Banks and Room Decontamination.

Bioquell Z2- ideal for Production Labs, Room Decontamination, Bio-Safety Labs and Cleanrooms.



HYDROGEN PEROXIDE VAPOR GENERATOR

Vaporization and Aeration in one

Bioquell Z2- system provides a proven -6log kill (%99.9999 elimination) of bioburden from every exposed surface in a selected zone

Scalability to meet your needs

Bioquell Z2- system can remove contaminants in areas up to 250m³, with the potential for much larger areas under Bioquell's advise

Quick setup, rapid decontamination

There is no need to wait for a limited temperature or humidity range to be reached to begin the process



Vaporizer and Distribution

Each Bioquell Z2- vaporizer can accommodate spaces up to 250m³

Touchscreen Control Panel

The control panel detaches from the system and is hosted outside of the zone being decontaminated.

Built-In Aeration

Aeration capabilities are built-in to the body of the system as a standard feature.

FLOW SCIENCES, INC.

Flow Sciences, Inc. (FSI) designs and manufactures safety containment solutions for Research and Development Laboratories.

CONTAINMENT SOLUTIONS

Glovebox Workstation

The Glovebox Workstation series provides containment for highly toxic applications using APIs that need more safety than an opened face enclosure



CLASS I Single and Dual HEPA

Preventing loss of containment with the use of airfoils and plenums, creating a laminar airflow across the work surface, which reduces eddies and turbulence



NITROGENEMA™ Glove Box

Protecting your process by nearly eliminating moisture or oxygen with the flow of inert gas.



Chemical Fume Hood

Overlapping sash bypass to provide better containment and eliminating the need for changes if vav is installed in the lab fume hood



Vibration-free Balance Hood

The Flow Sciences Top Mounted Containment Enclosures eliminates vibration both on the work surface and on the work bench.



TOC, MERCURY ANALYZERS & ICP-OES



PRODUCTIVITY-ENHANCING INSTRUMENTATION

World's leader in the design and manufacturing of analytical instrumentation for the laboratory providing productivity-enhancing instrumentation and solutions to a number of industries.

PRODUCTIVITY-ENHANCING INSTRUMENTATION

TELEDYNE TEKMAR

Total Organic Carbon (TOC)

The Fusion was designed with the pharmaceutical and drinking water applications in mind. With its extremely low detection limit of 0.2 ppbC and its ability to handle high levels of carbon, acid, particulates, and salt, it is a very versatile analyzer for many sample matrices. The accuracy of the Fusion's UV/Persulfate oxidation is unmatched. UV/Persulfate has very little background carbon, lower than TOC combustion systems, making it the best choice for drinking water and ultra-pure water applications.



TELEDYNE LEEMAN LABS

Mercury Analyzer

Fully automated instruments that address the analysis of solids, semi-solids and liquids. They are equipped to assist today's laboratory technician, chemist or lab manager in meeting the myriad of challenges that face today's modern laboratory. Easily maintained with readily accessible consumable and operator-friendly serviceable items and commonly serviced parts



Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES)

Prodigy Plus brings together the latest in solid-state detector technology and Leeman Labs' advanced high dispersion Echelle spectrometer to provide the most powerful ICP available today. Not only does Prodigy Plus provide superb resolution, stability and detection limits for reliable results, it also provides a wide variety of optional features that are guaranteed to enhance the capabilities of your organic analysis lab.



PRODUCTIVITY-ENHANCING INSTRUMENTATION

UNMATCHED ACCURACY



Sample History, Electronic Signatures, Metadata, Replicates Collection and User IDs are some options you can choose with the exporting data function

Septum Piercing Needle
Allows for the use of vial caps with a septa thus eliminating sample exposure time to the atmosphere

Autosampler

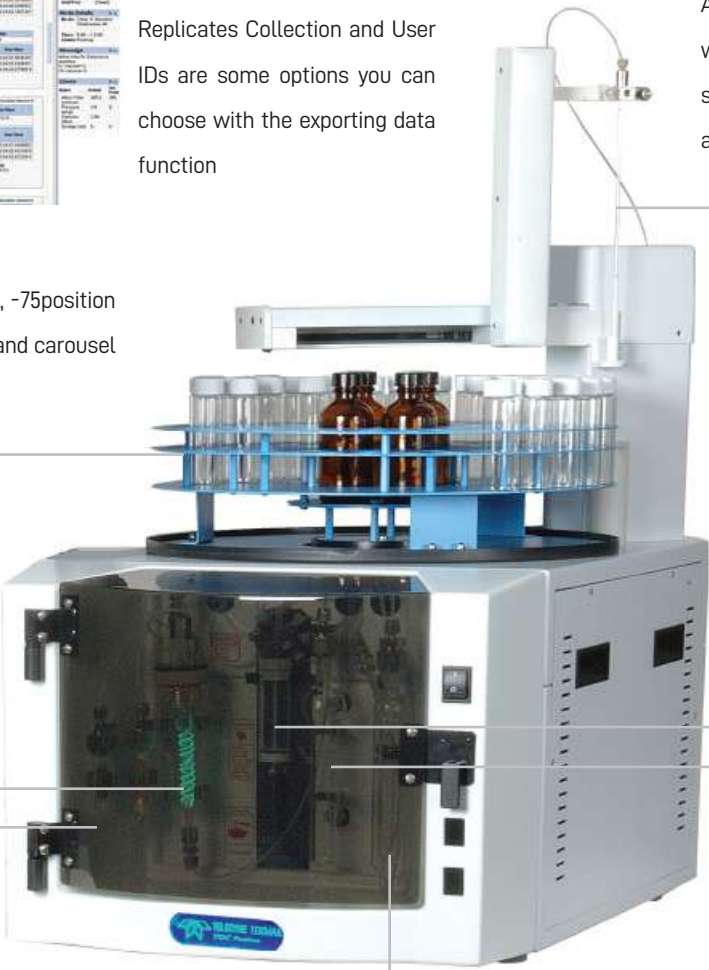
The Fusion has a standard 40mL vial, -75position integrated autosampler with an arm and carousel for position selection

UV Oxidation Reactor

Tekmar's improved UV reactor increases sample conservation and improves radiation interaction with water samples and oxidant.

Halogen Scrubber

The halogen scrubber removes chlorine and other halogens from the CO2 before it enters the detector.



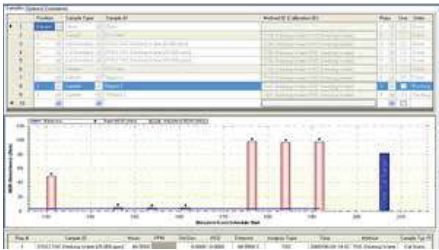
Syringe and Valve
The syringe driver has a volume delivery range of 125µL to 25mL and sample delivery between 2mL and 10mL depending on the applied method

Moisture Control System
Consists of a mist trap and permeation dryer, both of which are designed to remove moisture from the sample

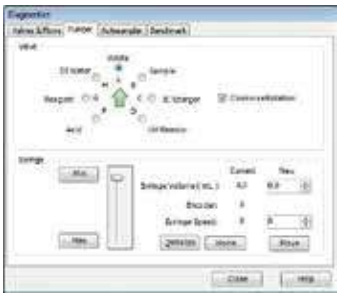
IC Sparger

Purge gas flows through the sparger, removing the IC from the sample

This screen demonstrates **full control diagnostics**, which allows for manipulation of all hardware components.



The **sample run screen** shows a blue status bar indicating that the current sample has exceeded the defined calibration range and the intellidilution feature has been initiated.



MICROBIOLOGY LABORATORY SOLUTIONS



STEAM STERILIZATION APPARATUS & SYSTEMS

FEDEGARI had gained a worldwide reputation for reliability and quality in the production of innovative steam sterilization apparatus and systems, thanks to the knowhow acquired and the experience and technologies developed in over 50 years' activity in this sector

STEAM STERILIZATION APPARATUS & SYSTEMS

STERILIZERS & WASHERS

Saturated Steam Vertical Sterilizers

The innovative FVA/A1, FVS and FVG series of vertical automatic steam sterilizers have been designed to meet the strictest requirements of the most demanding applications.



Saturated Steam Horizontal Bench Top Sterilizers

The FOB series are suitable for many different applications, making it the perfect choice to satisfy modern laboratory needs. FOB series autoclaves combine technology and know-how, and can be used by very different laboratories.



Stand-alone Lab Sterilizer

The FOB4 Lab Sterilizer is suitable for the use in laboratory for many different applications, such as:

FOB5 Lab Sterilizer presents a great flexibility of use, ranging from quality assurance laboratories in pharmaceutical or food industries, to BSL4 – 3 laboratories in research centres and/or hospitals.



Lab Glassware Washer

FGW Lab Glassware Washer uses a steam generator to improve washing performances: steam has an optimized emollient effect on greasy and sticky dirt.



STEAM STERILIZATION APPARATUS & SYSTEMS

EXPERIENCE TRUE STERILIZATION

Filter Decontamination

of exhaust air with sterile filter



Easy handling of large volume sterilization

treating materials and goods as glassware and plasticware, media preparation, liquids in open and sealed containers, mixed regular and biohazard wastes, as well as porous loads, packed instruments, textiles, rubber articles, etc. for hospital use.

Transformer

Modulating Valve on feed steam inlet



Performance

Improved performances thanks to more efficient and faster processings.

Configuration

All models can be configured using a wide range of process and software options and an extensive choice of accessories.

GMP / GLP compatible data management

offering full traceability and documentation meeting the most stringent worldwide safety and quality standards. Options for compliance to EN 285 and HTM.



Thema4Lab

The pharma process controller customized for lab applications. Engineered and pre-validated by Fedegari according to GAMP 5, Thema4Lab process controller is a revolutionary solution, a completely customized system for laboratory needs that benefits from the pharmaceutical expertise of the industrial Thema4 process controller. his innovative system guarantees a reliable and cost-effective process development and is already available on FOB5 steam sterilizers and FGW glassware washers.

Separate steam generator



Valving system

Sanitary diaphragm valve in 316L stainless steel with pneumatic actuator for maximum reliability and tightness.



INTEGRA

Moving liquids in a precise and productive way is core to many tasks of laboratory professionals in the life sciences industry.

MEDIA PREPARATION & DISPENSING AND LIQUID HANDLING

Media sterilization

MEDIACLAVE allows for a much shorter process in which medium formulation and sterilization is carried out in one single step. The temperature of the agar medium is precisely monitored and controlled during the entire process



Media Automatic Dispensing

MEDIAJET can process up to 1100 dishes in a single hour and provides truly reliable walk-away operation. Equipped with a UV lamp, the filling chamber where Petri dishes are automatically filled with agar medium, is kept free from contamination.



Peristaltic Pumps

DOSE IT peristaltic pump is an easy to use device that can be used for many purposes. It is extremely light it is also easy to create individual programs, e.g. dispensing with continually increasing speed for density gradients.



Flame Sterilization

FIREBOY: Two different types of safe Bunsen burners for connection to a gas distribution system or gas cartridges.

FLAMEBOY: Flame pistol with piezoelectric ignition for connection to a gas distribution system or gas cartridges.





The world's largest manufacturer of serial-production environmental simulation chambers for scientific or industrial laboratories

TEMPERATURE, CLIMATE & ENVIRONMENTAL SIMULATION CHAMBERS

Incubators

CO2 Incubators that guarantees optimum, reproducible growth conditions for cell cultures, Standard Incubators with natural and forced convection and Cooling incubators that are gentle on samples and provide high-quality performance



Freezers

Binder freezers come with multi-layered safety concept allows users to mix and match elements to suit any environment. With practical unit sizes appropriate, sophisticated options and practical accessories, users have everything they need for reliable long-term storage of highly sensitive samples.



Chambers

Drying and heating chambers, Safety drying chambers, Vacuum drying chambers, Constant climate chambers, Dynamic climate chambers.



Ovens and Vacuum Ovens

Binder ovens guarantee short drying time with high temperature accuracy and defined ventilation where the vacuum drying chamber models enable effective drying without residue or damaging the material being dried



INNOVATIVE SOLUTIONS FOR FERTILITY CLINICS & LABS

TEMPERATURE, CLIMATE & ENVIRONMENTAL SIMULATION CHAMBERS

Heat jacket

This heated jacket heats the incubator chamber directly from all directions, resulting in a fast temperature recovery time and more uniform heat distribution.



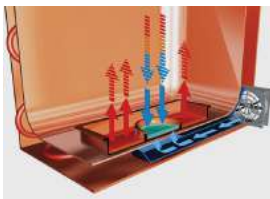
Intuitive Touchscreen Controller

Internal data recording, can be read out in open format via USB interface.



3 perforated shelves, stainless steel.

Lockable door handle.



Binder technique to prevent condensation with **integrated cold spot** to condensate the excess humidity

The new drift free CO₂ sensor technology

the new detector and source are inherently stable without the need for compensation with direct access to the sensor making maintenance easier

DuoDoor™ system: Unit door and glass door can be opened with one handle.

- Temperature range: ambient temperature plus 4 °C to 60 °C
- Humidity range: 90 to %95 RH
- CO₂ control range: 0 to 20 vol% CO₂
- O₂ control range: 0.2 to 20 vol% O₂ for versions with O₂ control
- Maximum usable space with minimal footprint and excellent ease of use
- Minimum risk of contamination thanks to uncompromising hot-air sterilization





PROCESS & LABORATORY CONSUMABLES & DISPOSABLES



FILTRATION SOLUTIONS, CHEMICALS & REAGENTS

Pall Corporation is a global leader in high-tech filtration, separation, and purification, serving the diverse needs of customers across the broad spectrum of life sciences and industry.

Scharlau is specialized in manufacturing laboratory chemicals and culture media of microbiology.

FILTRATION SOLUTIONS, CHEMICALS & REAGENTS

PROCESS STERILE & NON-STERILE FILTRATION SOLUTIONS

Mycoplasma Removal Filters (0.1 µm)

Ideal for sterile filtration of cell culture growth media and intermediate and final bulk biological process fluids where the risk of a contamination due to a penetrative bioburden isolate is a concern.



Sterile Liquid Filters (0.2 µm)

High-capacity, high flow-rate 0.2 micron-rated sterilizing grade filters designed for filtration of a broad range of liquids in bioprocessing.



Bioburden Reduction Filters

designed for effective bioburden and particle control. The Pall-patented Supor machV membrane incorporated in these filters ensures high throughputs and flow rates when utilized for the protection of buffers and biological process fluids.



Sterile Air Filters

Optimized for use in prefiltration of compressed or pressurized gases, and sterile air or gas filtration to completely remove particles and droplets plus microorganisms like molds, yeasts or bacteria and even viruses and phages.



Particulate Filters

Providing absolute removal ratings for reliability, built in prefiltration for economy and are constructed for long service life and high flow-rates.



Air & Liquid Filter Housing

These advanced housings are manufactured from 316L stainless steel and are engineered to meet the requirements of the BioPharmaceutical industry. State-of-the-art manufacturing technologies are used to construct a housing ideal for the most critical of applications.



FILTRATION SOLUTIONS, CHEMICALS & REAGENTS

PROCESS STERILE & NON-STERILE FILTRATION SOLUTIONS

The **Allegro single-use chromatography system** is a flexible system designed for pilot scale, clinical production batches and commercial production. The flexible modular system design enables column operation with isocratic or gradient set up options.

The Allegro MVP system is designed for use across a range of bioprocessing activities such as:

- Sterile filtration
- Bioburden reduction
- Depth filtration
- Virus filtration
- Media and buffer preparation
- Membrane chromatography
- pH adjustment
- Virus inactivation
- Final formulation and filling



Pall's recommended **standalone filter integrity test** instrument for the pharmaceutical market. The latest product of Pall's long experience and expert technical knowledge in producing successful, top-quality test instruments, it enables users to test even more filters in less time, reliably and reproducibly, saving time and reducing costs.

- Fully automated test preparation and integrity test cycle for hydrophobic filters
- Fully automated filter wetting and testing sequence for hydrophilic filters
- Automated control of the key parameters that influence Water Intrusion Test results
- Designed for use in GMP environments subject to controls on Electronic Records and Signatures (21 CFR Part 11)
- Sanitary design with removable internal water tank



Calibration Contracts

The integrity test instruments can be calibrated at any Pall-certified service center or directly on site. Calibration equipment, procedures and training are available. Pall recommends calibrating the instrument at least once a year, with a full service after three years.



FILTRATION SOLUTIONS, CHEMICALS & REAGENTS

CHEMICALS & REAGENTS

KARL FISCHER, AQUAGENT® Reagents

Specialized in coulometric, volumetric and water analysis Karl Fischer reagents and standards.



Volumetric Solutions

Acids, Sulfates, thiocyanates, chlorides, EDTA, Hyamine solutions, concentrated solutions, nitrates, bromates, dichromates, hydroxides, permanganates and carbonates reagents and solutions.



Solvents for LC-MS, HPLC and GC

LC-MS acids, additives, solvents and water
UHPLC-MS and HPLC grade solvents and reagents
GC head space grade solvents and reagents and water



Pesticide Analysis Reagents

GC/MS Pesticides mixtures, Pesticide Standards and mixtures, Multicomponent Stock Solutions, Pesticide Degradation Check Solution and Pesticides Spiking Mixtures



FILTRATION SOLUTIONS, CHEMICALS & REAGENTS

CHEMICALS & REAGENTS

QuEChERS Kits

Extraction kits for the extraction stage with maximum convenience and ease-of-use.
Dispersive kits for the solid-phase dispersion stage with maximum traceability.



Buffer Solutions

Complete collection of precise, reliable buffer solutions that are directly traceable to NIST



AAS and ICP Standard Solutions

Comprehensive range of Ultratrace Ultrapure Acids, ICP standards, and AAS standards



Organic Standard Solutions

Comprehensive range of organic standard solutions and reagents in many fields such as pesticides, ASTM Method, ISO, EUR standards.



Products in compliance with Pharmacopoeias

Scharlau delivers a very wide range of reagents and solutions that comply with the most recent Pharmacopoeial Monographs and ensures the products are included in the reagents list of these Pharmacopoeias.





INSTALLATION, QUALIFICATION, VALIDATION & REPAIR

OUR SERVICE TEAM

We understand the importance of adequate services and the need for a properly qualified service team to perform their tasks as expected along with the continuous changing of technologies.

Therefore, our service team receives professional training through dedicated training programs provided by our manufacturing partners and by Taawon internal programs.

INSTALLATION AND COMMISSIONING

It is one of our responsibilities to serve a complete successful installation and commissioning of the equipment we supply; That also includes staff training on the operation of the instrument and other optional services.

CUSTOMER TRAINING

We offer training on the application and the preventive maintenance of all the equipment we supply.

MAINTENANCE & REPAIR

Maintenance and repair are performed by a well trained team of engineers and technicians. With the aid from manufacturing companies manuals, most repairs can be done at customers' sites or at Taawon's workshop if needed which is fully equipped with specialized tools and instruments for different tasks.

CALIBRATION & CONTRACTS

We offer calibration services for selected instruments such as weighing solutions, titrators, particle counters, humidity sensors and thermal analysis. For some instruments we offer to do the adjustment based on calibration reports generated.

We also offer annual contracts that includes routine visits and emergency calls, it also includes different options for quality control assistance.



INSTALLATION, QUALIFICATION, VALIDATION & REPAIR

QUALIFICATION

Qualification is a critical step to which we are dedicated to perform for pharmaceutical industries including all the instruments and equipment we supply. we also perform qualification in other sectors as well.

SUPPORTING APPLICATIONS & REGULATIONS

With the continuously evolving technologies and the need to comply with local and international regulations and requirements, we update our staff and our clients knowledge and skills constantly to be part of our contribution and support for our customers within our field of specialty

TRAINING

Training is performed by qualified trainer's of Taawon's team.

our trainers have training experience with different industrial and medical sectors along with special training they have received from different manufacturing companies.

CERTIFICATES

Trainees who attend our training programs will receive certificates of attendee with details about the training and training period.

Trainees who apply and pass training exams will receive training certificate with training program details.

TRAINING VENUES

Training for small groups (up to 7 persons) can be conducted at our training room and work shop in Taawon offices, for theoretical and practical parts. For larger number of participants training can be arranged at selected proper locations.

Contact us

E-mail: info@taawon.com

**Taawon for Laboratory & Scientific Supplies
Amman - Jordan**

Tel: +962 (06) 51 55 477/8

Fax: +962 (06) 51 55 470

www.taawon.com