

Inorganic

Carbon | Sulfur



844/744 Series

- Quick, accurate carbon and sulfur determination by combustion infrared detection
- Expanded range and increased precision for the most demanding applications
- Calibration, analysis, evaluation, and diagnostic functions accessible via user-friendly software
- Rapid sample combustion with our high-efficiency induction furnaces
- Autocleaner available
- Compatible with SmartLine® Remote Diagnostics
- Optional 10- and 60-position autoloader
- Cornerstone® Mobile option provides access to data, plots, and instrument status from your smartphone, tablet, or desktop computer

Oxygen | Nitrogen | Hydrogen



836/736 Series

- Oxygen, nitrogen, and hydrogen determination by inert gas fusion
- Fast, simultaneous measurement of oxygen, nitrogen, and hydrogen
- State-of-the-art infrared and thermal conductivity detectors with no moving parts and no manual adjustments
- EN variant for large sample applications like elemental determination in uranium oxide and aluminum; Si variant for the analysis of low level oxygen in silicon wafer samples and other materials
- Optional 20-position autoloader and autocleaner available
- Compatible with SmartLine Remote Diagnostics
- Cornerstone Mobile option provides access to data, plots, and instrument status from your smartphone, tablet, or desktop computer

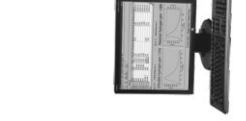
Carbon | Water



RC612

- Fast, reliable carbon and water determination for a wide variety of organic and inorganic materials
- State-of-the-art furnace control system allows temperature ramping from ambient to 1100 °C
- High-efficiency afterburner ensures complete combustion of organic compounds when ramping
- Simplified furnace design eases maintenance and increases safety
- Increased flexibility by reacting in an inert atmosphere or combusting in an oxidizing atmosphere
- Optional non-sequential 50-sample autoloader available
- Compatible with SmartLine Remote Diagnostics

Hydrogen



DH603

- Residual and diffusible hydrogen determination by hot extraction
- Optional diffusible sample piercer
- State-of-the-art thermal conductivity detector with no moving parts and no manual adjustments
- Innovative chassis architecture improves reliability and serviceability
- Larger combustion tube to accommodate bigger samples
- Compatible with SmartLine Remote Diagnostics

Glow Discharge AES



Glow Discharge Atomic Emission Spectrometers

- Bulk elemental analysis only, or bulk analysis and compositional depth profiling (CDP) models available
- Spectral range from 120 to 850 nm (configuration dependent)
- Continuous profile of concentration/thickness
- Wide dynamic range with concentrations from ppm to 100% by weight
- Short analysis time (within minutes)
- Choice of RF or DC lamps for both conductive and non-conductive samples
- Easy-to-use software
- Compatible with SmartLine Remote Diagnostics

Metallography

Sectioning

Mounting

Grinding | Polishing



SX100M Series

- Radial arm for manual sectioning at user-friendly working height
- Integrated 6.6 gallon recirculating tank
- Sloped floor for efficient coolant flow and minimal debris build-up
- Convenient, easy-to-operate control panel
- Electronic mechanical braking system



MSX Series

- Manual control and automatic oscillation or pulse sectioning
- Flexible model configurations with blades up to 17 in (432 mm)
- Optional integrated X- and Y-tables for parallel sections
- Optional filter bag kits for longer coolant operating life
- Side access ports to cut variable-length specimens
- Rugged steel design
- Recirculation tank included



MX Series

- Fully automatic mounting press with single- and dual-mounts in a variety of mold sizes
- Intuitive, easy-to-use touchscreen interface
- Simple, solid-steel closure design is durable, easy to clean, and avoids jamming
- Slim, 8-inch wide profile maximizes lab space
- Optional water recirculator to save water and keep MX units clean



PX300

- Solid and compact with a durable aluminum frame design
- Manual control of wheel speed, water spigot, and timer
- Water faucet with adjustable flow is flexible for ease of bowl cleaning
- Optional non-motorized head for multiple sample preparation



PX400/500

- Intuitive, touch-screen software simplifies your grinding/polishing process
- Spiral bowl design prevents drain clogs
- Up to five programmable metered fluid dispensers to meet every polishing objective
- Rugged components withstand any environment
- Fixed and individual sample method models available



BG Series

- Coarse grinding
- Wet or dry applications
- Single- or dual-belt models
- Dust Collector and Water Recirculator available

Optical Equipment



DSX1000 Digital Microscope

- Combines micro and macro imaging in one versatile and easy to use package
- Capture and measure 3D images from 20 to 7000x magnification
- Powerful software to help capture the best image and create custom reports
- Available with a variety of options and are compatible with IA44/PAX-it™ Image Management software
- Available in the USA and Canada only



Olympus Optical Microscopes

- Inverted metallographs for production, quality control, and research
- Full range of upright stereo microscopes
- GX-, BX-, SZ-, and SZX-Series models available
- Full range of accessories including filters, reticles, digital cameras, and software
- Available in the USA and Canada only



VX4 Optical Microscope

- Inverted brightfield metallograph with excellent optics and LED illumination
- Includes manual XY-stage and polarized light evaluation
- Camera port for simple camera integration



IA44/PAX-it™ Image Management System

- Complete image analysis software with a powerful file archival system
- Search, sort, and organize images according to descriptive fields
- An ideal solution for measuring, archiving, and image analysis of materials
- Optional modules for grain size, nodularity, edge detection, and more



LM/LV Series

- Micro and Macroindentation, Knoop, and Vickers capabilities
- Analog and digital models
- Touch-screen capability on select models
- Durable design for reliable performance
- Optional auto turret
- All models conform to ASTM specifications



LR/LCR Series Rockwell-Type

- Superficial & Rockwell scales
- Load Cell technology
- Highly accurate, reliable results
- Dead weight Rockwell-type units available
- Conforms to ASTM specifications



AMH55 Hardness Testing System

- Cornerstone brand software for increased usability, simplified reporting, and streamlined analysis times
- Unique patented trace function
- Automatically measures impressions with various surface conditions, including scratched, etched, or unevenly illuminated surfaces
- Application-specific modules to expedite testing
- Available in Automatic, Semi-Automatic, and Life configurations

Automatic | Manual Hardness Testing

Organic

Calorimetry



AC600

- Accurate and precise calorific measurements in as little as 5 minutes
- Ergonomic vessel and prep station design for convenient operator handling and ease-of-use
- Meets or exceeds ASTM and ISO requirements
- 6,000 to 15,000 Btu/lb range for 1 gram sample
- Intuitive software
- Compatible with SmartLine Remote Diagnostics

Thermogravimetric Moisture



TGM800

- High precision, automated thermogravimetric moisture determination, which utilizes a direct method for replacing tedious loss-on-drying techniques
- Measure up to 16 samples at a time with optimized drying time using mass constancy end point recognition
- Intuitive Cornerstone brand software with flexible method settings and touch-screen operation
- Precise oven temperature ramping and set point control up to 175 °C
- Remote access through Cornerstone Mobile provides access to data, plots, and instrument status from smartphone, tablet, or desktop computer

Thermogravimetric Analysis



TGA801

- Automated thermogravimetric analysis batch of up to 19 samples
- Determine multiple constituents ... moisture/ash, organic matter, volatile content, and LOI from a single sample in various organic, inorganic, and synthetic materials
- Optimized analysis time using automatic end point recognition based upon sample mass constancy
- Cornerstone brand software with touch-screen interface promotes an ergonomic workspace and optimized workflow
- Remote access through Cornerstone Mobile provides access to data, plots, and instrument status from smartphone, tablet, or desktop computer

Sulfur | Carbon



832 Series

- Simple, fast, accurate sulfur/carbon determination in organic materials
- High-efficiency furnace with intelligent control lowers operating costs and optimizes furnace reliability
- Individual wide-range IR detection
- Operator-centered design with touch-screen Cornerstone brand software promotes an ergonomic workspace and optimized workflow
- Optional High Temperature (HT) and Dual-Range (DR) 832 models are also available
- Cornerstone Mobile option provides access to data, plots, and instrument status notifications from your smartphone, tablet, or desktop computer

Carbon | Hydrogen | Nitrogen



828 Series

- Rapid analysis cycle times as fast as 2.8 minutes with macro sample mass capabilities
- A reduction reagent tube lifetime of 4,000 samples extends instrument uptime and lowers operating costs
- Dual-stage reagent-free furnace with exclusive oxygen furnace enables application versatility using macro sample mass
- Cornerstone brand software with touch-screen interface promotes an ergonomic workspace and optimized workflow
- Optional S832 add-on provides independent sulfur determination
- Remote access through Cornerstone Mobile provides access to data, plots, and instrument status from smartphone, tablet, or desktop computer
- Complies with ISO, AOAC, AACC, AOCS, and ASBC methods of analysis

Carbon | Nitrogen | Sulfur



928 Series

- Rapid determination of macro sample sizes (up to 3 grams) in as little as 5 minutes
- Extended reagent lifetimes maximize lab efficiency and lowers operating costs
- Rugged design meets the demands of difficult applications
- Operator-centered design with touch-screen Cornerstone brand software promotes an ergonomic workspace and optimized workflow
- Cornerstone Mobile option provides access to data, plots, and instrument status notifications from your smartphone, tablet, or desktop computer
- Complies with AOAC, AACC, AOCS, and ASBC methods of analysis

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LECO

EMPOWERING RESULTS

Separation Science

GC-MS

GCxGC-MS

GCxGC

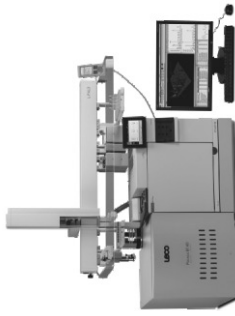
High Resolution GC-MS

High Resolution GCxGC-MS



Pegasus[®] BT GC-TOFMS

- Industry-leading sensitivity helps you find and quantify an unlimited number of analytes, while proprietary deconvolution algorithms yield clean, high quality spectra
- A complete historical record of all components for each sample is retained for future data mining
- The tried-and-tested reliability and durability of our Pegasus brand in a convenient benchtop unit
- StayClean[®] ion source eliminates the need for source cleaning



Pegasus BT 4D GCxGC-TOFMS

- Enhanced sensitivity by coupling our benchtop Pegasus BT with our high performance GCxGC thermal modulation system
- Ability to interrogate challenging samples where the best sensitivity is needed
- Unique and powerful ChromaTOF[®] brand software simplifies quantitation and analyte identification with features such as NonTarget Deconvolution[®] (NTD[®]), Target Analyte Find, library searches, and more
- StayClean ion source eliminates the need for source cleaning
- ChromaTOF Tile software allows the easy and quick statistical comparison of groups of GCxGC TOF samples



QuadJet[™] SD

- Enhanced separating power for complex sample analysis
- Easy-to-use ChromaTOF-based software provides acquisition processing and reporting functionality within a single package
- Classification software feature simplifies component identification
- Available cryogen-free modulator eliminates the need for LN₂ dewars



Pegasus GC-HRT+ GC-TOFMS

- The highest performance TOF mass spectrometer for the GC-MS market
- Folded Flight Path[®] (FFP[®]) technology allows users to achieve resolutions of up to 50,000
- Employs ChromaTOF software with automated High Resolution Deconvolution[®] (HRD[®]) and formula generation for seamless identification of unknowns, plus compatibility with standard GC-MS libraries
- Spectral Analysis Toolkit harnesses the power of Mass Defect, Van Krevlen, and RDBE plots to take your unknown analysis to a new level
- 1 ppm mass accuracy identifies unique molecular formula
- Encoded Frequent Pushing[®] (EFP[®]) contributes to increased sensitivity, expanded dynamic range, and much more
- The new Multi-Mode Source[™] (MMS[™]) allows users to easily produce and compare aligned data from multiple modes of ionization (EI, PCI, and ECNI)



Pegasus GC-HRT+ 4D GCxGC-TOFMS

- Combining the highest performance GCxGC and TOF on the market gives users an unprecedented ability to interrogate complex samples
- Using the Identification Grading System[™] (IGS[™]), identify components with the ultimate confidence
- With mass accuracies of 1 ppm and peak capacities at least two times greater than anywhere else in the marketplace
- The industry's most established GCxGC systems; thermal modulation with liquid nitrogen or cryogen-free versions
- ChromaTOF Tile software allows the easy and quick statistical comparison of groups of GCxGC TOF samples
- The new Multi-Mode Source (MMS) allows users to easily produce and compare aligned data from multiple modes of ionization (EI, PCI, and ECNI)
- Integrated software platform acquires data, controls all hardware, and analyzes and reports results with a high level of automation; tailored to get the most out of HR data