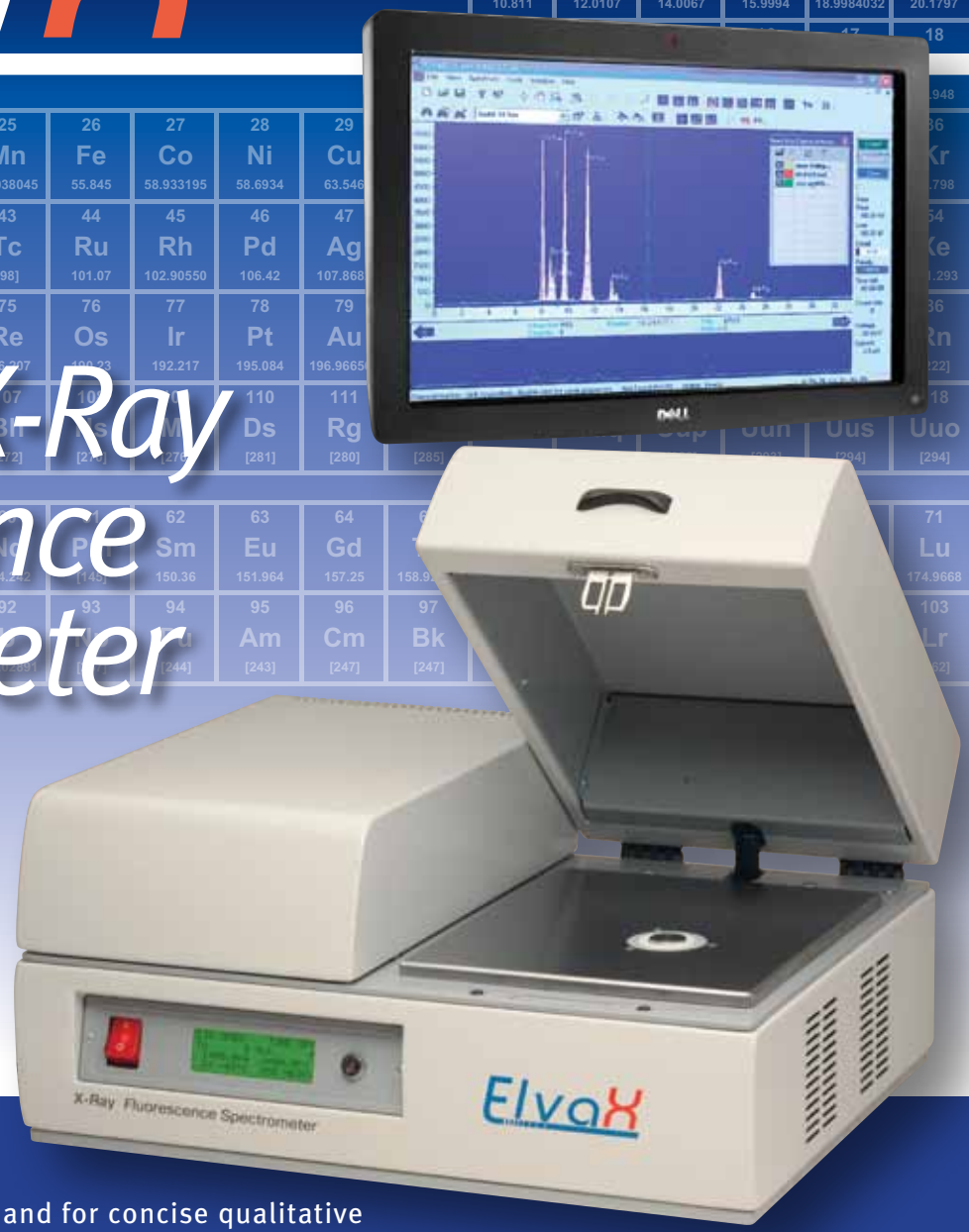
ElvaX®

Desktop X-Ray Fluorescence Spectrometer

from

XCALIBUR XRF SERVICES



Engineered to meet the growing demand for concise qualitative and quantitative analysis of solids, liquids and powders, the ElvaX delivers the precision and accuracy of expensive stationary lab spectrometers for a fraction of the price of comparable performance systems.

Capable of detecting Na (11) – U (92) in a wide range of elemental concentrations, the ElvaX provides ultimate versatility for a vast array of modern industrial and scientific applications in which elemental composition has to be known in a matter of minutes. With a completely automated measuring process and an intuitive, user-friendly interface, the ElvaX is simple to operate for even the novice user. No time-consuming specimen preparation is required, and samples may be of any shape.

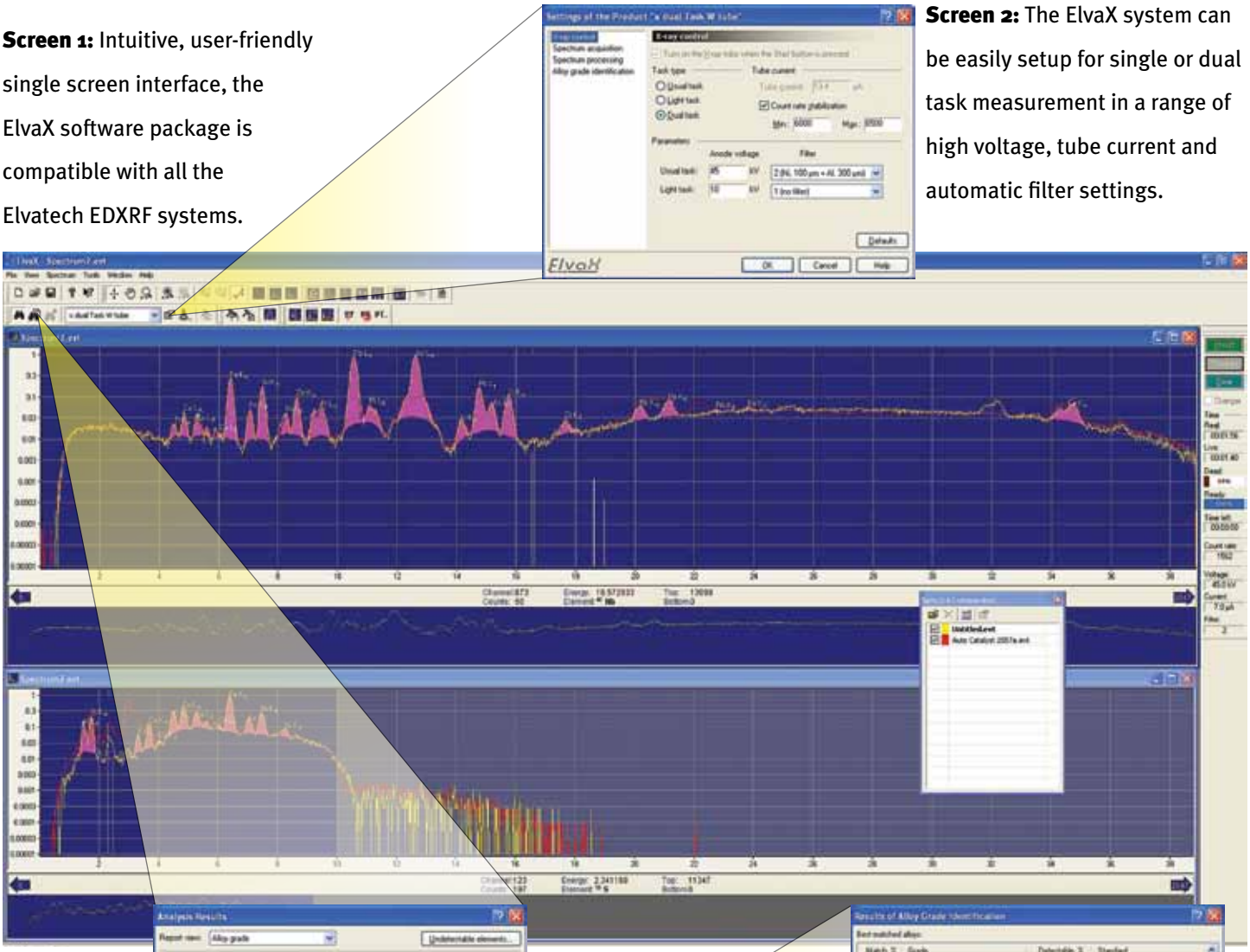
For the past decade this unique tool has been extensively used in North America, Europe, Russia, Middle East, India and many other countries worldwide.

For more information, contact us today at 631.435.9749 • www.xcaliburxrf.com

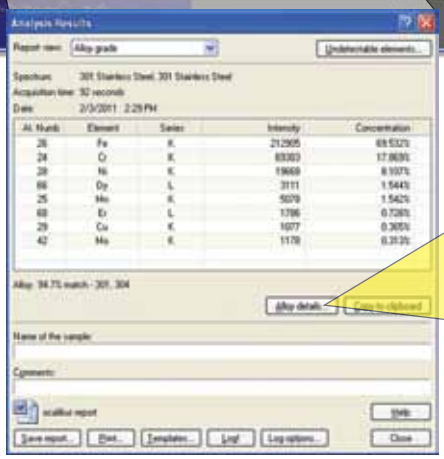
ElvaX®

Desktop X-Ray Fluorescence Spectrometer

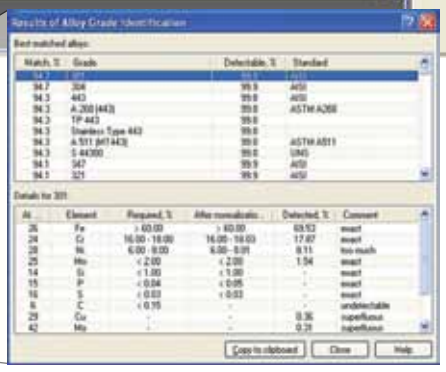
Screen 1: Intuitive, user-friendly single screen interface, the ElvaX software package is compatible with all the Elvatech EDXRF systems.



Screen 2: The ElvaX system can be easily setup for single or dual task measurement in a range of high voltage, tube current and automatic filter settings.



Screen 3: Analysis results can be stored as reports or in a log file, results can be printed to a customized report using MS Word & Works. Alloy matching available.



Screen 4: Alloy matching is provided with a range of alloys; 300 – 10,000. A custom alloy database can be user generated.

A Partial List of Industries Served

Metals & Metallurgy:
Control of pre-production raw material, quality control and incoming inspection of a wide range of alloy material; Steel, Brass, Nickel alloys, etc.

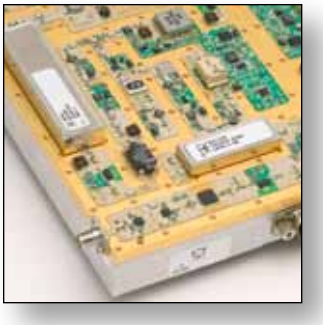
Cement & Build Materials:
Testing the composition of various construction materials including cement, pressure-treated wood, steel, limestone, clay & other raw material.

Precious Metals & Jewelry:
Gold, Platinum & Silver refinement testing, as well as determining precious metal content of finished products.

Cosmetics:
Testing for Titanium and Zinc in sunscreen; Iron, Titanium, and Zinc in base makeup; and toxic metal contamination.

Environmental:
Soil, Water & Particle analysis testing for metals and hazardous materials.

Art & Archeological:
Analysis of material content, to determine authenticity and place of origin.



RoHS Testing:
Test for RoHS restricted elements Pb (Lead), Hg (Mercury), Cd (Cadmium), Cr (Chromium), Br (Bromine) in a wide range of materials.

Petroleum Applications:
Sulfur in oils, fuels, gasoline, & coal. Waste oil, waste fuel oil, and lubricating oils testing for a wide range of elements.

Toys & Consumer Products:
Testing for Pb (Lead) & Cd (Cadmium) contamination in the PPM range for a wide range of consumer products.

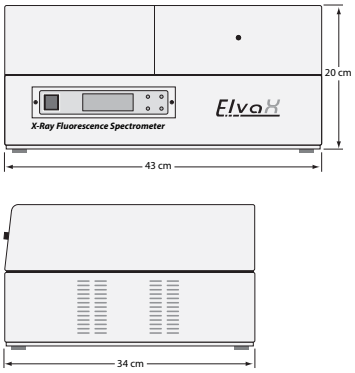
Mineral and Mineral Products:
Geological applications, raw minerals and mineral products like cement.

Specifications

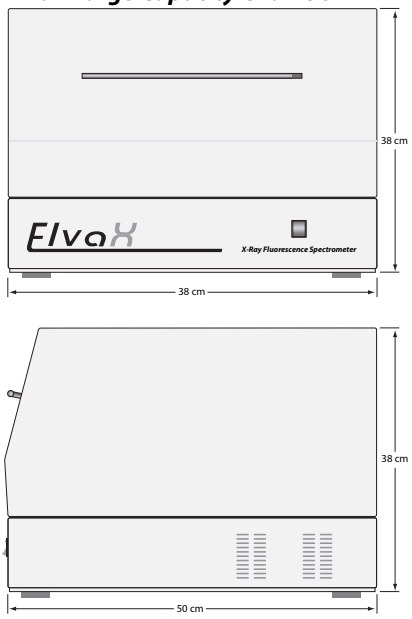
Measurement Capability	
Detectable Range	Cl (17) - U (92). ElvaX Light option extends range to Mg (12) - U (92); uses Helium purge instead of vacuum chamber.
Detectable Concentration	Below 10 PPM range for most elements in a light matrix, 0.01% for metal alloys.
X-Ray Generation	
X-Ray Tube	W or Aq target anode, 140 micron Be window, air cooled.
X-Ray Generator	4-50 kV (adjustable in 0.1 kV steps), 0-100 µA (adjustable in 0.2 µA steps), 5 W max.
Stability	0.1% over 8 hours.
Beam Size	3 x 4 mm. (Special order up to 10 mm).
X-Ray Detection	
Detector	***Standard***...Si-Pin (165 eV FWHM @ 5.9 kev), Thermoelectrically cooled 6 mm2/500um/ ML Collimator / 0.5 mil Be window
	Optional...High resolution SDD (<145 eV FWHM @5,95 keV)/25 mm2
Chamber	
Dimensions/Weight	Standard Chamber: 43 cm x 34 cm x 20 cm, 18 kg.
	Large Capacity Chamber: 50 cm x 50 cm x 38 cm, 35 kg.
Power Supply	110 VAC/60 Hz or 220 VAC/50 Hz.
LCD Display	Chamber display shows system status.
Power Consumption	50 W.
Analog-to-Digital Converter	4096-channel, successive approximation, sliding scale, 2 µsec conversion time.
Pulse Processing	Time variant shaping amplifier, base line restoration, pulse pile up rejection, rise-time discriminator, automated adaptation to count rate.
Software	
Operating System	ElvaX™ analysis package, running under Microsoft Windows™. Automatic spectrum calibration/adjustment before spectrum processing. User customizable data printout.
Control	X-ray source output, data acquisition system parameters, sample and filter selection (optional).
Data Acquisition Time	10 - 1200 sec.
Spectrum Processing	Automatic peak search, peak deconvolution, background removal, automatic element identification, net peak intensities above background.
Quantitative Analysis Algorithms	Fundamental parameters, quadratic stepwise multiple regression, manual spectra comparison.
Optional	Dual task measurement capability, available with filter package.
	Alloy database, ElvaX supplied database 300 – 10,000 alloy list.
	User customized alloy database available.
Available Options	Automatic motorized filter, 2 - 5 position.
	8 position carousel.
	Helium purge capability, detection range Na (11) – Pu (94), includes automatic filter option.
	Ag target anode for enhanced lower level detection limits, (can be added with or without he purge option)
	Automated multi-position sample carousel (contact us for specifications).
	Sample view video camera (contact us for specifications).

All equipment includes on-site service support by a team of engineers with many years of solid EDXRF experience. Our firm provides complete on-site support including certification and preventive maintenance services, and repair for many types of XRF equipment. Also available are on-line and phone support capabilities, standards, calibrations and applications for a wide range of EDXRF equipment manufacturers. Check our web site for a full selection of XRF products, services, and more. **www.xcaliburxrf.com**

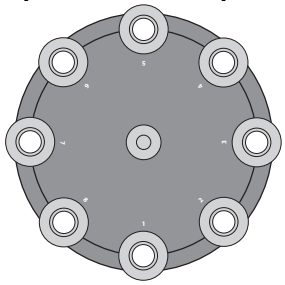
ElvaX Standard Chamber



ElvaX Large Capacity Chamber



Optional Multi-Sample Carousel



For more information on these and other Xcalibur products, contact us today!
1340 Lincoln Avenue, Unit #7, Holbrook, NY 11741
www.xcaliburxrf.com • Tel: 631.435.9749 • Fax: 509.691.3344
2/2011

XCALIBUR XRF SERVICES