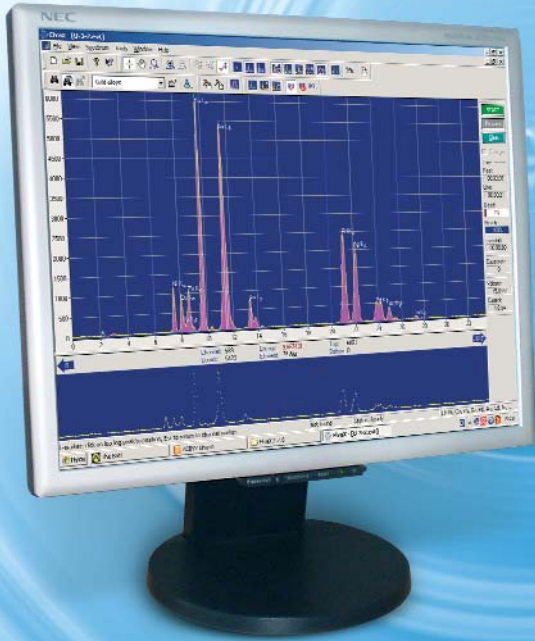




Portable X-Ray Fluorescence Spectrometer ElvaX



Non-destructive, fast and versatile analysis

Introducing **ElvaX**:
The Next Generation Desktop Spectrometer

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

Capable of detecting Mg (12) - U (92) in a wide range of elemental concentrations, **ElvaX** provides ultimate

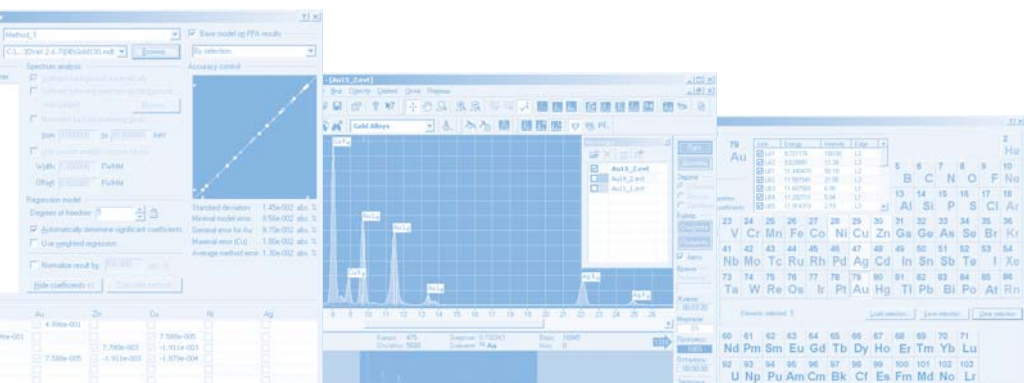
versatility for a vast array of modern industrial and scientific applications in which elemental composition has to be known in a matter of minutes. With a completely automated measuring process and an intuitive, user-friendly interface, **ElvaX** is simple to operate for even the novice user. No time-consuming specimen preparation is required, and samples may be of any shape.

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



Precise, rapid qualitative and quantitative analysis for hundreds of applications, including:

- RoHS & WEEE Inspection
- Jewelry & Precious Metals Assay
- Metallurgy & Chemical Analysis
- Customs & Criminal Forensics
- Medical Research & Diagnostics
- Food, Feed & Cosmetics Testing
- Environmental Monitoring
- Archeological Research



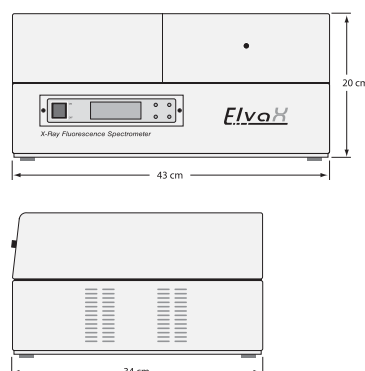
Applications Performance

| 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 | 1.0 ppm for most elements in light matrix; 0.01% for metal alloys. |
| Key Applications | |
| Metallurgy | Precious and non-precious metal analysis; steel; ore; solder. |
| Jewelry & Precious Metals Assay | Gold, Platinum, Silver, Palladium and other precious metals (with or without standard sample). |
| Chemicals | Elemental analysis of plating solutions, petroleum products, rubber. |
| Organics | Testing of food, feed and cosmetics for heavy metals and contaminants. |
| Environmental | Water, soil, burnt ash. |
| Forensics | Customs control, criminology lab analysis, archeological research. |
| Medical | Research & development, medical diagnostics. |

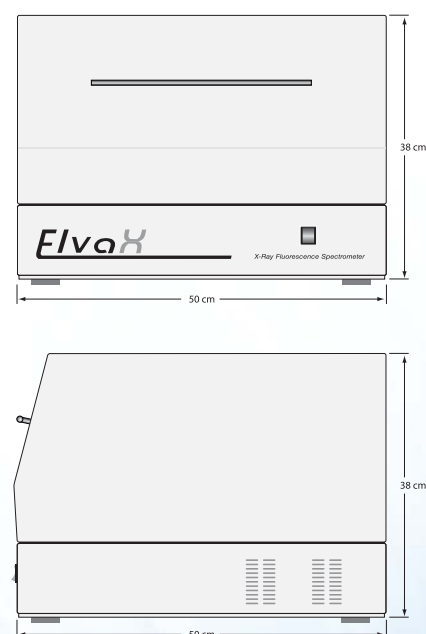
System Specifications

| X-Ray Generation | |
|---|---|
| X-Ray Tube | Ti or W or Rh target anode, 140 micron Be window, air cooled. |
| X-Ray Generator | 4-50 kV (adjustable in 0.1 kV steps), 0-100 μ A (adjustable in 0.2 μ A steps), 5 W max. |
| Stability | 0.1% over 8 hours. |
| X-Ray Detection | |
| Detector | Si-PIN diode, thermoelectrically cooled. |
| Resolution | 165 eV at 5.9 keV (Fe55 isotope). |
| Beam Size | 3x4 mm. (Special order up to 10 mm). |
| Window | Be, 8 μ m. |
| Analytical Unit | |
| 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. |
| Power Consumption | 50 W. |
| Data Acquisition Time | 10-1200 sec. |
| Pulse Processing | Digital Pulse Processor, base line restoration, pulse pile up rejection, rise-time discriminator, automated adaptation to count rate. |
| Optional Features | Automated multi-position sample carousel. (Contact for specifications.) Sample view video camera. (Contact for specifications.) |
| Software | |
| Operating Software | ElvaXTM analysis package, running under Microsoft Windows™ 98, 2000, XP or NT. |
| Control | X-ray source output, data acquisition system parameters, sample and filter selection (optional). |
| 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. |

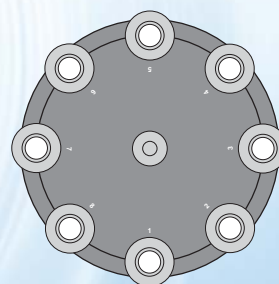
ElvaX Standard Chamber



ElvaX Large Capacity Chamber



Below: Optional multi-sample carousel



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