

RS-50 LABORATORY GAMMA RAY SPECTROMETER



Fast Radiation Analysis of Steel and Dust Samples

The RS-50 Lab system has been specifically designed to measure and quantify the presence of radiation in steel samples, steel by-products (Slag and Dust) and many other materials.

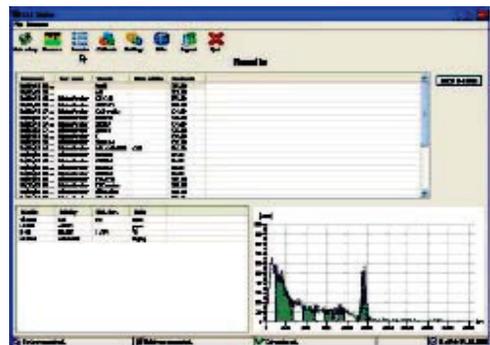
The RS-50 is an easy to use stand-alone floor-standing unit incorporating new state-of-the-art evaluation techniques that give accurate sample analysis to an accuracy of 0.02 Bq/g in less than 5 minutes.



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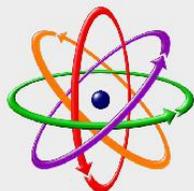
Features

- Sensitivity - accuracy to 0.02 Bq/g (0.5pCi/g)
- Analyzer - 1024 channel MCA
- Integrated fully shielded system for optimum performance
- Sample time - full analysis typically in 5 minutes with intermediate results shown
- Fast alert in 30 seconds if high levels of radiation are present
- Easy to use, operator friendly
 - sample loading very easy for the user (spring loaded door)
 - optimized PC displays / commands for easy user interface
- PC software "LabCenter" automates analysis
- High performance and reliability, 3rd generation of proven design
- Fast system calibration using optimized calibration routines
- All data stored in a SQL data base for easy user integration
- Network ready with easy connectivity for interfacing to users network



> Typical display screen





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System Specifications

Detector and Processor

- Detector type - Sodium-Iodide (TI)
- Detector size - 3" x 3" - 0.35L volume
- Resolution
 - better than 9% FWHM for Cs-137
- Energy range - 20keV to 3MeV
- Reference source - 9kBq Cs-137 (0.25uCi)
- Gain - auto controlled by CPU and HV
- ADC - 1024 channel MCA

Mechanical

- 85mm system Steel Shielding (optional Lead shielding)
- Size
 - 770mm X 360mm X 620mm (30" X 14" X 24")
- Operating weight 560 kg (1280 lbs)
- Sample chamber - 150mm diam x 150mm high

Environmental

- Operating temperature - 0 - 40 °C (limited by PC)
- Storage -20 to +60 °C (limited by detector)
- RFI/EMI emissions
 - complies with FCC rules
 - 47CFR Part 15 for Class A

LabCenter - PC control/analysis software

- Operating system
- W2K, XP, Vista, Linux Kernel 2.6
- DB server - Firebird SQL 2.0,
- ISO/IEC 9075-1,14
- Graphics oriented semi-automatic analysis



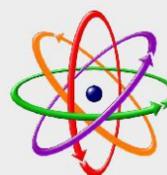
System consists of:

- RT-50 system cabinet with steel sample shielding
- Integrated detector module includes system electronics
- Personal desktop computer with 15" flat screen monitor
- Sample weight measurement scale and connecting cables
- Set of Steel calibration samples
- LabCenter software with OS and SQL server
- Operating and installation manuals

Optional:

- Lead shielding for improved performance
- Cal standards for DUST measurements
- Sample containers - 100 or 250ml

Note: System is shipped in separate parts for protection, some simple on site assembly required, full instructions supplied.



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