

FIELDS OF APPLICATION

- Nuclear medicine
- Radiopharmacy
- PET
- Research laboratory
- Isotope production

FEATURES

- Alpha, beta and gamma radiation measurement
- Integrated photomultiplier and detector electronics
- Ergonomic measuring system, optionally with a dedicated PC
- Parallel use of multiple detectors with one software to speed up measurements
- Customizable automatic background compensation
- Serial measurement function with adjustable measurement time
- Manual ROI
- Easy to disassemble and to decontaminate



The ABG Wipe Tester is designed to evaluate smear samples, dried liquid samples and air sample filters, measuring alpha, beta and gamma radiation separately. A major advantage of the ABG Wipe Tester is that it uses only one detector for the measurement of three types of radiation and the whole evaluation process can be conducted easily. The measurement assembly consists of a segmented measurement chamber with low-activity lead shielding and an intelligent scintillation detector, equipped with a combined scintillator and integrated MCA.

The system is connected to a PC which runs the RadSpect spectrometric software. It displays the measurement results as count rate (cps, cpm) or activity (Bq, Bq/cm², Bq/m³). Individual ROIs can be set up with the measurement software, which are used to identify the isotopes causing the contamination. During and after measurement the complete spectrum is displayed and the software provides data about calibration, FWHM, chi-square and MDA values. The software is compatible with nuclear medicine information management systems. Customizable Word templates can be used for measurement report generation. The measurement results and reports are stored in the program database and can be exported or printed for further processing. Furthermore, the software has a user rights management tool, where different permissions can be assigned to operators (measurement) and for specialists (settings and calibrations).

TECHNICAL PARAMETERS

Detector

Dimensions: Ø 6.6 cm (2.6 in), height: 43.5 cm (17.1 in)
Weight: 2 kg (4.4 lb)
Detector type: combined scintillator with dia. 50x50 mm NaI(Tl) + a 0.5 mm plastic + 5 µm ZnS(Ag)-coating
Energy range (γ): 30 keV ... 3 MeV
Typical efficiencies:

source	detector distance	efficiency full spectrum	absolute efficiency
Co-60:	20 mm	25.3 %	1.7 % (1332 keV)
Cs-137:	20 mm	17.8 %	6 % (662 keV)
Sr90/Y90 (β):	5 mm	32.6 %	
Am-241:	20 mm	13.2 %	5.8 % (59 keV)
Am-241(α):	5 mm	26.4 %	

Temperature range: +10° C to +40° C

Power supply: 240 V, 50-60 Hz

Low background measuring chamber (without stand)

Dimensions: height: 44 cm (17.3 in), width: 22 cm (8.6 in), length: 22 cm (8.6 in)
Weight: 116 kg (255.7 lb)
Lead wall thickness: min. 6.4 cm (2.54 in)

Optional metal stand

Dimensions: height: 67 cm (26.4 in), width: 50 cm (19.7 in), length: 50 cm (19.7 in)
Weight: 10 kg (22 lb)