Radiation detection

NUCARE

RAD IQ™ WBC

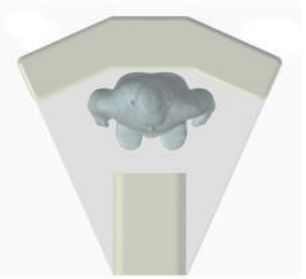
Whole Body Counter

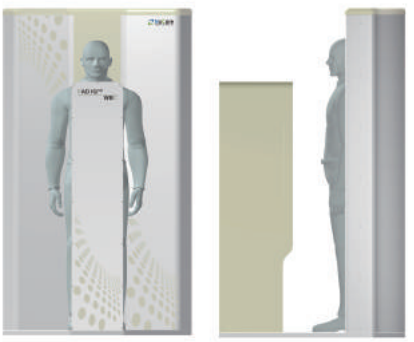
The RAD IQ™ WBC determines whether the subject individual has ingested radioactive material (body burden) after exposure to radioactive materials due, for example, to an event. The WBC is currently in use in Japan for Fukushima related measurements. It is designed to provide high throughput with high performance and to be user friendly, both for the operator and the subjects being examined.

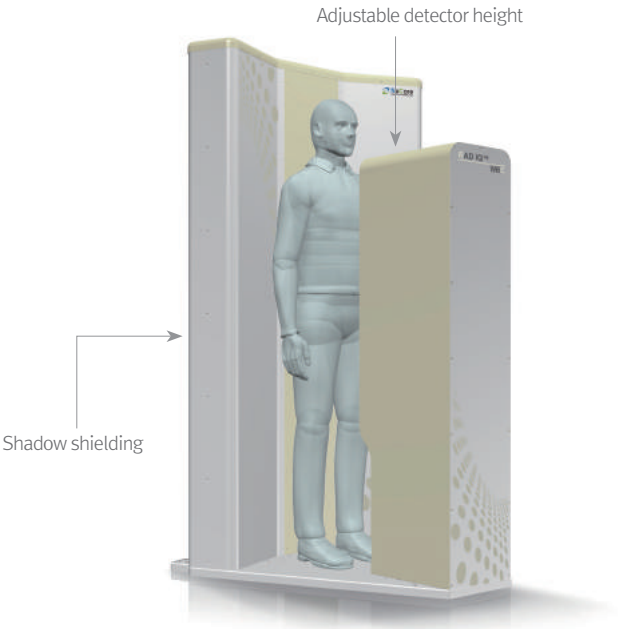
The lightweight design offers an open style of design while offering excellent sensitivity. This is achieved through our combination of detector segmentation and collimation. This technological approach is subject to a patent pending.

The WBC provides an adjustable detector height which may be rapidly adjusted between measurements enabling children, pregnant women, and large men to be readily and conveniently accommodated without impact to system performance.

The weight and small footprint of the design enable the WBC to be readily installed in small spaces or in a mobile unit. The design features make it easy to accommodate people of all shapes and sizes and to maintain high throughput even in heavy traffic situations.







Key features

- Open design accommodates subjects of all shapes and sizes without performance degradation
- Excellent performance achieved with segmented and collimated 3x3 inch NaI(Tl) detectors (8 detectors)
- Small footprint and lightweight ease installation even in mobile applications
- Adjustable detector height optimizes performance for all subject types including children and pregnant women
- One minute measurement time (typical) for high throughput
- Laser guided detector positioning ensures correct adjustment

Key Specifications

Detector	Segmented and collimated NaI(Tl) (3x3 inch, 8ea.)	Shielding	30mm lead (shadow shielding)
Detector FOV Coverage[1)]	600×800 mm	Detector travel length	400 mm (15.7 in.)
Foot print	1150(W)×1100(D)×2000(H) mm	Weight	Total : 1,600kg(3,527lb) Heaviest item : 190kg(419lb)
Typical MDA[2)]	170 Bq (Cs-134), 180 Bq (Cs-137)	Power	110 – 220 V AC (50 or 60 Hz)
Energy range	200 – 2,000 keV	Resolution	7% ± 1% @ 662keV(Cs-137)
Operating Temperature	-15℃(5℉)~50℃(122℉)	Options	Calibration phantom

1) 15 cm from the front of the detector
2) 1 min measurement, background : ~0.1 uSv/h

PDA Application SW

Adult Subject

Children Subject

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