

# **Thyroid / Lung monitors**

# Thyroid/Lung monitor



## APPLICATION

Whole body counting (WBC) system, is designed for identification of radionuclides content in human body and organs, in particular thyroid gland or lungs. By its sensitivity WBC system is in compliance with up-to-date requirements for radiation standards in internal irradiation level control of personnel on facilities and plants of nuclear-fuel cycle, in medical facilities in regions with high probability of pollution by induced radionuclides, etc.

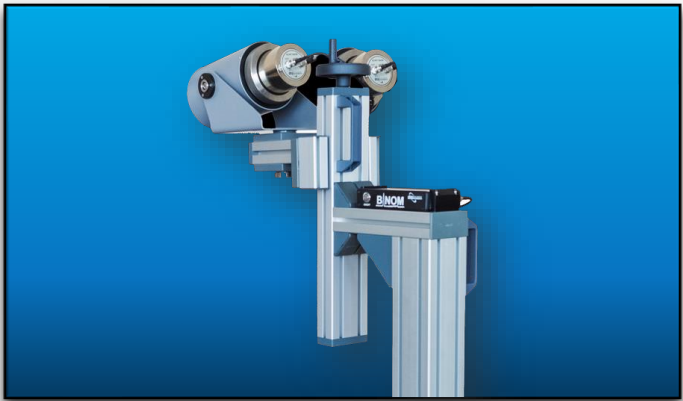
## DESCRIPTION

Thyroid / Lung monitor is made of light and compact aluminum construction which is really easy to handle for everyday usage. The main holder has wheel base and handle to move the measuring part around the facility. When it is fixed in certain location, the operator is capable of adjusting the position of the detector in vertical and horizontal position to find the most convenient position for the person being analyzed.

In order to guarantee the best performance of the system in terms of MDA, our detector is covered with lead shield and equipped with collimator. Moreover, the comfortable chair has lead plate installed in the back to avoid interference of other objects and to have good parameters of background.

## COMPLETE SET

- Gamma radiation detection unit based on scintillation detector
  - One unit for Thyroid monitoring
  - Two units for Lung monitoring
- Digital Spectrometric device
- Lead with collimator set
- Stand and detection unit holder
- Chair with lead shielding
- Analytical software



Parameter	Value
Detector type*	NaI, Ø63*63mm
Spectrometer provides registration of gamma-radiation in the energy range	0.05 - 3.0 MeV
Radionuclides activity measurement range, for 5 min	85...10 <sup>5</sup> Bq for I-131 110...10 <sup>5</sup> Bq for I-133
Minimum measured activity: thyroid measurement for 30 min	30 Bq for I-131 45 Bq for I-133
Number of ADC channels	512 – 4k
Typical resolution at 662 keV (137Cs)	< 7,5%
Measurement instability	±1% max.
Working temperature range	+10°C...+35°C
Operation mode setup time	10 min

\* - Other detector materials and sizes are available.

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**Gamma-rays**