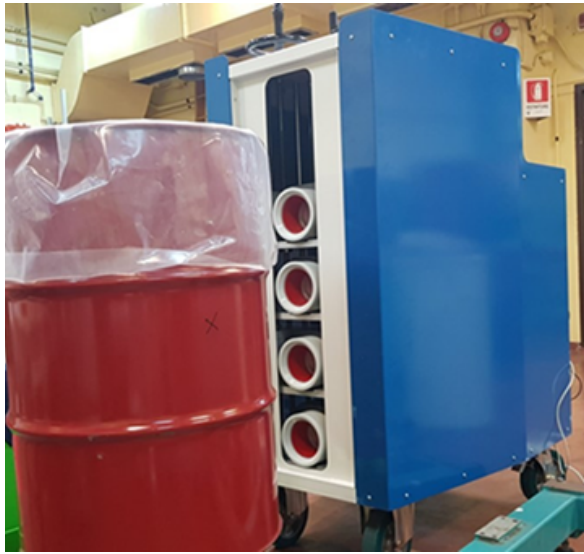
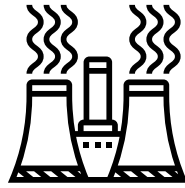


EASYSCAN

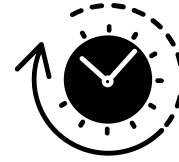
ISOTOPIC WASTE CHARACTERIZATION MONITOR



Benefits



Allows facilities to take the Counting Room/Hot Lab to the field



Save time and resources while improving operational efficiencies



Easy transport to new locations

Main Features

- **Portable Design**; wheel up to sample
- **Characterization of drum sub-volumes**, up to 104 gallons
- **Robust mechanical structure**
- **Detectors**: 4 NaI(Tl) scintillators 3" x 3" with compact MCA
- **0.8" lead shielding/collimator for each detector**
- **Geometry database and release limit calculation**
- **Data archiving and measurement reports**
- **MDA (Co-60)**: down to 1.35 E-9 $\mu\text{Ci/cc}$ (15 min count)
- **Simple**, user friendly software
- **Zero maintenance required** (only energy re-calibration 1x per month)

Description

EASYSCAN spectrometric mobile system is a robust and handy system designed to perform an easy, fast and precise spectrometric analysis of radioactive material contained in drums or other containers.

- Detectors are distributed over a vertical array of 4 units. Each detector is provided with a 0.8" lead shielding, which acts as a collimator: this way each scintillator "sees" one of the four vertical layers of the radioactive drum. System can achieve an MDA of 1.35 E-9 $\mu\text{Ci/cc}$
- Mechanical support structure is robust and very easy to move around; easily moved around in different locations without the need of disassembling the scintillators or the electronics; anti-vibration absorbers protect against accidental bumps.
- Radioactive drums of different volume can be characterized with the EASYSCAN. The position of the scintillators can be set in a quick method.
- Operator interacts with the EASYSCAN through sophisticated yet easy-to-use software. To perform the measurement, the operator uses a one-button procedure, by setting only the pre-set measurement time. A 15-minute measurement time is enough for most cases where low to very-low radioactive concentrations shall be measured. Measurement reports are provided at the end of each scan.
- The EASYSCAN comes with a full Monte Carlo characterization of the response function of each scintillator. Both the response functions and the measurement report can be customized according to the customer's specific needs in terms of different isotopes to be searched, material density, drum volume, etc...

TECHNICAL SPECIFICATIONS

Detectors and Electronics

- Type: 3" x 3" NaI(Tl) scintillator crystals couple to PMT
- Number of units: 4 in total, distributed on a vertical array
- Energy resolution: < 7.5 % for Cs-137
- Compact MCA-with 4K channels
- Battery back-up in case of power failure
- Lead collimator thickness: 0.8"

MDA Levels

- For a typical drum filled with concrete material (2 g/cc)
- Co-60: 5.40 E-9 $\mu\text{Ci/cc}$
- CS-137: 2.16 E-8 $\mu\text{Ci/cc}$
- Eu-152: 1.14 E-8 $\mu\text{Ci/cc}$
- For a typical drum filled with plastic material (0.2 g/cc)
- Co-60: 1.35 E-9 $\mu\text{Ci/cc}$
- Cs-137: 5.68 E-9 $\mu\text{Ci/cc}$
- Eu-152: 2.97 E-9 $\mu\text{Ci/cc}$

Management Software

- Representation of detector-collimator-drum
- Efficiency curves calculation
- Calculation of specific activity (Bq/g or $\mu\text{Ci/g}$ or $\mu\text{Ci/cc}$)
- Drum geometry database
- Customizable release concentration limits
- Customizable analysis reports and printing options
- Good functioning verification

Accessories

(available upon request)

- Warranty extensions from 12 months to 12 months

The EasyScan operates with no moving parts, as it is a completely manual system. This avoids any risk generated by motor-related issues, reducing potential risks caused by improper use.

